

## PTO GRASS COLLECTION SYSTEM

## **DESIGNED FOR:**

## MODEL# 50721201 EVERRIDE WARRIOR SERIES MOWER



# **OPERATOR'S MANUAL**

## **ASSEMBLY • OPERATION • MAINTENANCE**

MANUAL PART#: Q0351

## PECO GRASS COLLECTION SYSTEM TABLE OF CONTENTS

S	Safety Alert	t Symbols	3
I	1-1 Introduc	NAND DESCRIPTION Inction	5
II	2-1 Prepara 2-2 PTO As 2-3 Univers 2-4 Belt Ins 2-5 Cam As 2-6 Top Mai 2-7 Lift Han 2-8 Aluminu 2-9 Dump M Exploded P 2-10 Blowe	FOR USE	

S	ECTION	PAGE
	2-12 Length of Hose Adjustment 2-13 Upper Hose Installation 2-14 Lower Hose to Blower Cone Installation - 2-15 Lower Hose to Boot Installation 2-16 Front Weight Installation	16 16 17
	OPERATING INSTRUCTIONS	18 18 18
IV	MAINTENANCE	18
V	PARTS AND SERVICE	19 20

### <u>Safety</u>

- 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 across 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



Black letters on ORANGE



Black letters on YELLOW

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.

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 WARRANTED?

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

1. PRODUCT WARRANTY: Any part of any consumer product, which is defective in material or workmanship as delivered to the purchaser will be repaired or replaced, as PECO elects, without charge for parts or labor, if the defect appears within 12 months from the date of delivery of the product to the original purchaser. **ALL** 

DEFECTIVE PARTS MUST BE RETURNED TO PECO FOR INSPECTION TO DETERMINE

VALIDITY OF WARRANTY CLAIMS. Freight and mailing 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 PECO Inc., 100 Airport Road, Arden, NC 28704 before any warranty adjustment can be authorized. At the time of requesting warranty adjustment, the purchaser must present evidence for 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 PECO Inc., under this warranty, shall be terminated if products are altered or modified in ways not approved by PECO Inc..

#### E. ACCIDENTS AND NORMAL MAINTENANCE.

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

#### F. NO REPRESENTATIONS ADDITIONAL WARRANTIES, DISCLAIMER.

Neither PECO Inc. nor any company affiliated with it makes any warranties, representations or promises as to the quality of performance of its products other than those set forth herein. Except as described above, PECO

#### Inc. makes no other warranties AND SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES OF FITNESS AND MERCHANTABILITY.

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

#### H. REMEDIED EXCLUSIVE.

The only remedies the purchaser has in connection with the breach or performance of any warranty on PECO Inc. consumer products are 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 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 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 good for picking up leaves and twigs in pre-season and post-season cleanup.

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 up to the aluminum container mounted over 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 of clippings, the operator can easily push and raise the lift handle, releasing the container's rear door and the container will pivot towards the ground.

## Section II INSTALLATION FOR USE

#### 2-1 Preparation Of Mower

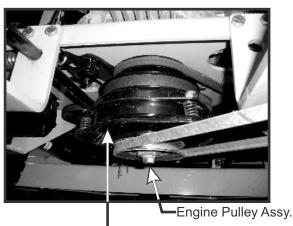
Carefully dismantle wooden shipping crate from around the components. Cut retaining straps and separate the parts. The collection system will have various parts located inside. Remove and sort all parts for easy identification.

**NOTE:** before each step of assembly it will help to study the exploded drawings on pages 10 -14.

From the underside of the engine remove the bolt and bushing from the electric clutch assembly. Replace these parts with the engine pulley assembly P#(A0198), 7/16" lock washer P#(K0053), and 7/16"-20 x 4" HHCS P#(K0359).

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 2-1a). Torque the bolt to 55 ft./lbs.

Figure 2-1a.



-Electric Clutch

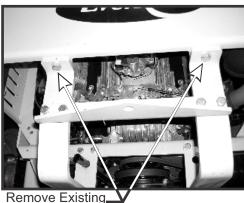
**NOTE:** Before installing the PTO mount plate assembly and exhaust deflector, the rear chassis of the mower must be removed for clearance. After installation, reattach the rear chassis to the mower.

To remove the rear chassis of the Warrior series mower, remove (2) 3/8"-16 x 1" existing nuts and bolts per side (see Figure 2-1b) and (2) 3/8"-16 x 1" existing bolts from frame (see Figure 2-1c).

Figure 2-1b.

Remove (2) Existing\_ 3/8"-16 x 1" HHCS And (2) Existing 3/8"-16 Flange Nuts Per Side

Figure 2-1c.

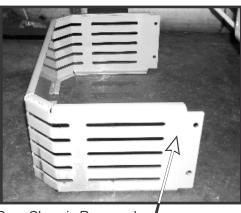


(2) 3/8"-16 x 1" HHCS (2) 3/8"-16 Flange Nuts

After removing rear chassis of mower (Figures 2-1d and 2-1e), refer to section 2-2 for instructions on mounting the PTO mount plate assembly.

Figure 2-1d.

Figure 2-1e.



Rear Chassis Removed\_\_\_\_ From Mower

## Installation Of The Exhaust Deflector Shield

With the rear chassis of the mower removed, align the two holes in the exhaust deflector P#(C0053) with the two top slots in the chassis (See Figure 2-1f). Insert (2) tinnerman screws P#(K1092) and fasten using (2) inlet clamp plates P#(B1668).

Figure 2-1f.

Exhaust Deflector



(2) Tinnerman Screws
(2) Inlet Clamp Plates

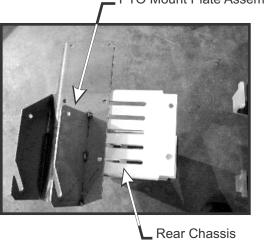
#### **Rotating The Donaldson Air Cleaner**

**Note**: If equipped with a Donaldson air cleaner, unit must be rotated to make clearance for top main frame assembly.

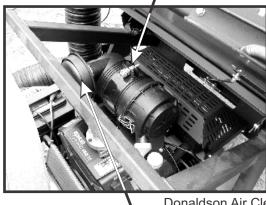
To rotate Donaldson air cleaner, loosen bolt on air cleaner bracket, rotate air cleaner forward as needed for clearance as shown in Figure 2-1g, and tighten.

Figure 2-1g.

Loosen Bolt To Rotate Air Cleaner



PTO Mount Plate Assembly



Donaldson Air Cleaner Rotated To Forward Position

6

#### 2-2 PTO Mount Plate Assembly Installation

Place the PTO mount plate assembly P#(A0670) onto the right rear chassis of the mower, lining up the lower four holes with the top and bottom slots in the rear chassis of the mower. Fasten the assembly by inserting (4) 3/8"-16 x 1-1/4" HHCS P#(K1192) through the PTO mount plate assembly and the slots in the rear chassis (Figure 2-2a), then place (2) PTO mount clamp plates onto the (4) 3/8"-16 x 1-1/4" HHCS from inside the rear chassis (Figure 2-2b). Secure the PTO assembly using (4) 3/8"-16 flange nuts P#(K1215). Follow the same steps to install the left lower frame leg P#(B0343). See Figure 2-2c.

Figure 2-2a.

(4) 3/8"-16 x 1-1/4" HHCS



Figure 2-2b.

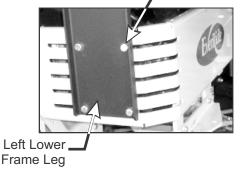
(4) 3/8"-16 Flange Nuts



(2) PTO Mount Clamp Plate

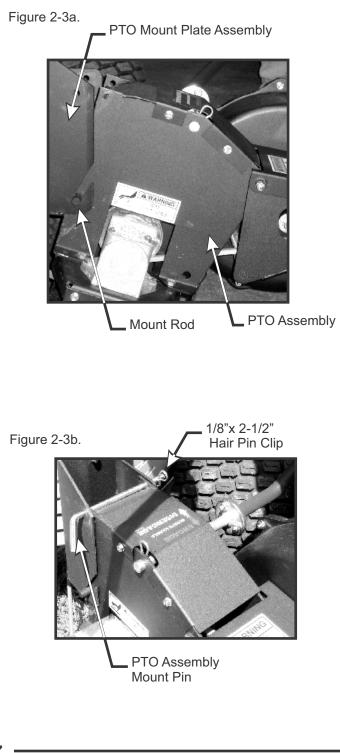
4) 3/8"-16 x 1-1/4" HHCS

Figure 2-2c.



#### 2-3 Universal PTO Installation

To mount the PTO assembly, insert the mount rod on the PTO assembly P#(A0623) into the mounting slots located on the PTO mount plate assembly P#(A0670) Figure 2-3a. Next, tilt the PTO assembly forward and insert the PTO assembly mount pin P#(B0274) thru the hole in the top of the PTO mount plate assembly and thru the PTO assembly. Secure the PTO mount pin using 1/8" x 2-1/2" hair pin clip P#(K0086) Figure 2-3b.



#### **2-4 Belt Installation**

Loosen the (4) bolts P#(K1191), (2) on each side, that secure the gear box assembly to the PTO assembly P#(A0623) (Figure 2-4a). 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). Connect the A63K kevlar cord belt P#(M0252) from the engine pulley to the lower gear box pulley (Figure 2-4b). To tension the drive belt, turn the adjustment bolt clockwise 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.

Figure 2-4a.

Gear Box Assembly

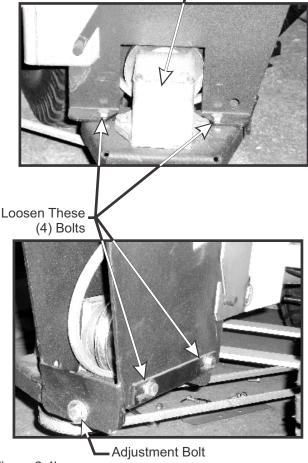
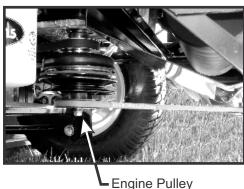


Figure 2-4b.

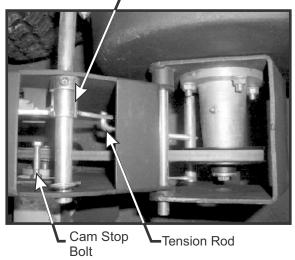


#### 2-5 Cam Assembly Adjustment

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 2-5).

Figure 2-5.

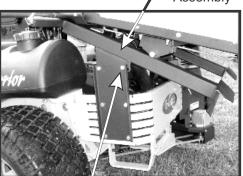
Cam Assy.



#### 2-6 Top Main Frame Assembly Installaton

Place the top main frame assembly P#(A0618) (Fig. 2-2) onto the main frame legs and fasten each side by using (2) 3/8"-16 x 1-1/4" HHCS P#(K0309) and (2) 3/8"-16 flange nuts P#(K1215).

Top Main Frame Assembly



(2) 3/8" -16 x 1-1/4" HHCS\_\_\_\_\_ (2) 3/8"-16 Flange Nuts Per Side

#### **2-6 Lift Handle Installation**

The various parts of the handle assembly P#(A0686) must be attached to the container frame. Page 10 shows the orientation and location of the components. Slide the lift handle into the slot in the handle mount bracket P#(B1730) on the grass container. It may be necessary to remove the handle grip P#(J0522) to allow the handle to fit through the slot.

Before attaching the handle, hook one end of the spring P#(J0176) into the hole on the underside of the handle. Hook the other end of the spring into the open hole in the handle mount bracket. Fasten the handle to the grass container frame by using (1) 3/8"-16 x 2" HHCS P#(K1208) and (2) 3/8"-16 flange nuts P#(K1215). At this point the handle can pivot back and forth in the slot of the handle mount bracket. With the handle in place, fasten the ball joint P#(K1442) to the end of the latch rod P#(A0260) (Page 10). Tighten to approximately half way down the threads of the latch rod. Slide the ball joint into the hole on the latch hook P#(B1529). Use (1) 5/16"-24 hex nut P#(K1444) and (1) 5/16" lock washer P#(K0043) to fasten the ball joint to the latch hook. Attach the opposite end of the latch rod into the handle. Fasten the rod to the handle by using (1) 3/32" x 3/4" cotter pin P#(K0094). Adjust the rod to allow the hook to close the box door completely.

Refer to pages 10 and 11 for exploded parts drawings and photographs of the complete assembly.

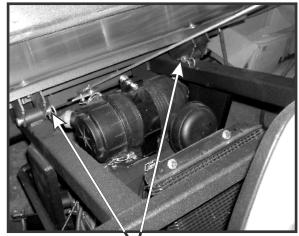
#### 2-7 Aluminum Grass Container Installation

**NOTE:** It is recommended that (3) people assist in mounting the container.

With three people available, two can lower the container onto the frame while the third person inserts 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 2-7).

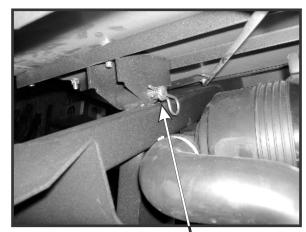
Reattach the bottom ends of the door opening linkages to the main frame by using (1) Rue-Ring cotter pin P#(K1437) per side.

To test the functionality of the dump mechanism, pull the lift handle away from the unit, and lift upward (Page 10). The door of the container should open and the box should pivot clockwise towards the ground.



Pivot Pins

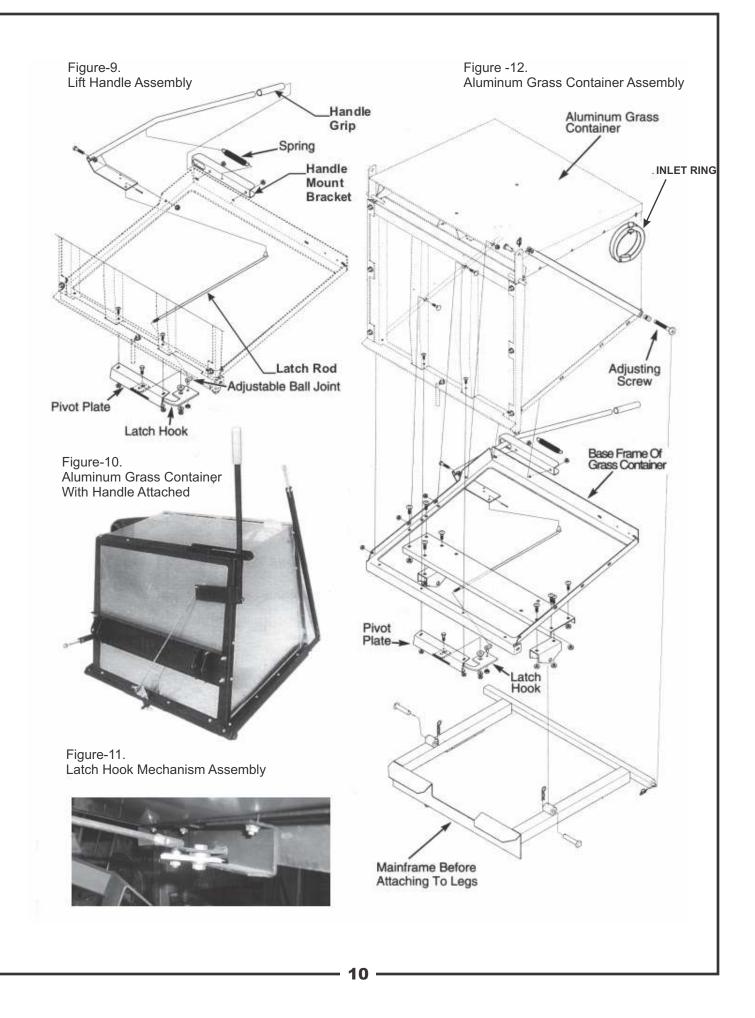
Figure 2-7.

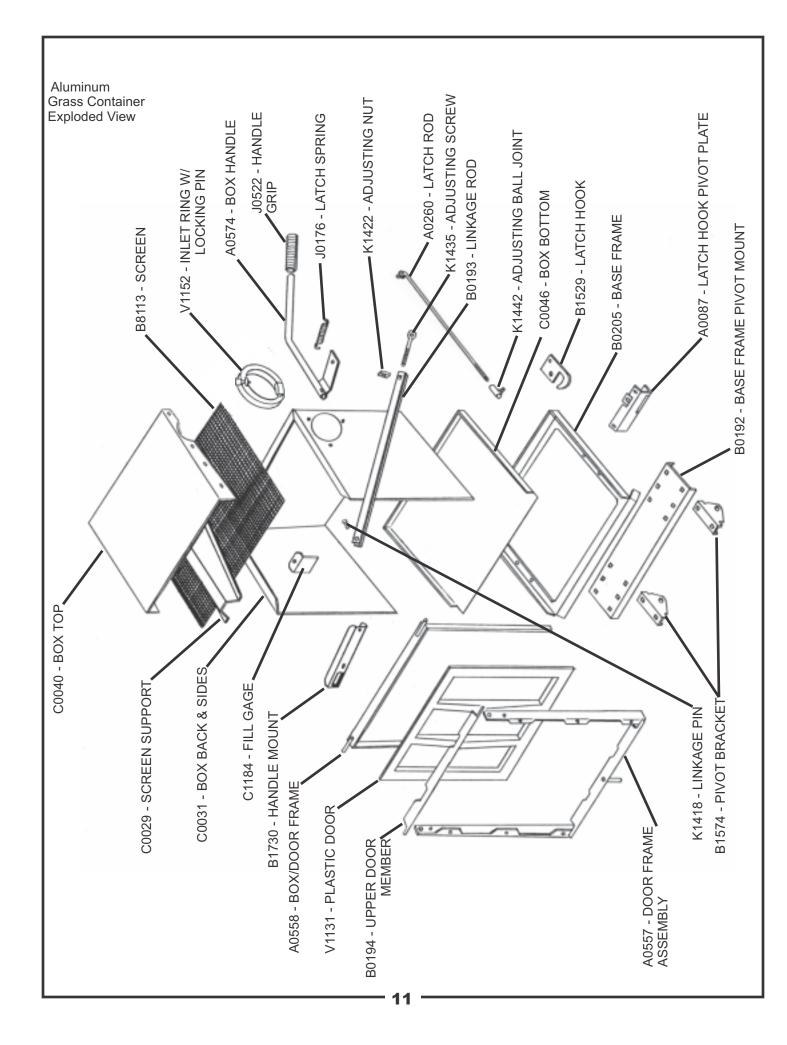


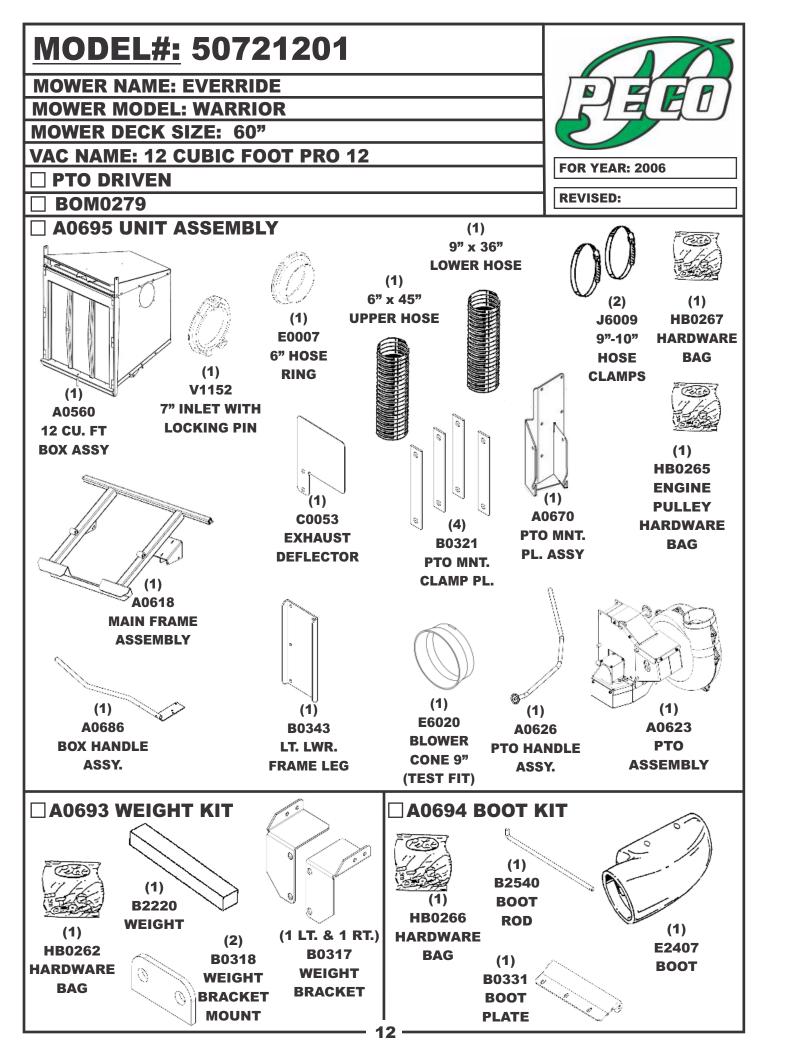
(1) Hair Pin Clip (Per Side)

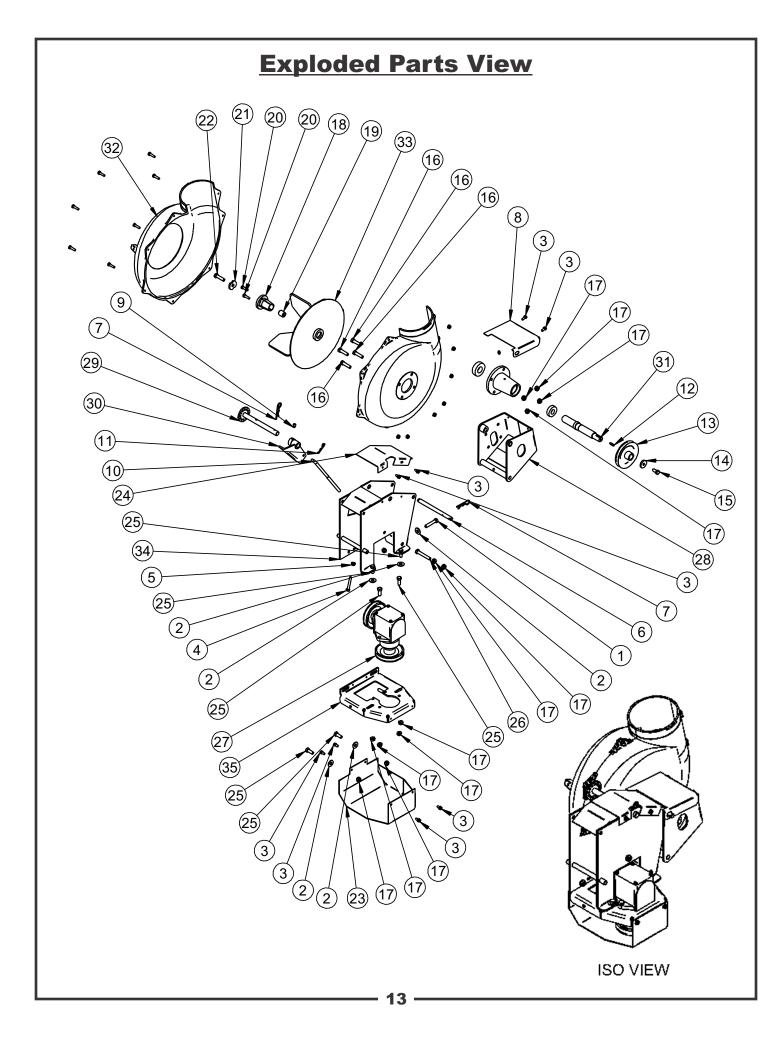
#### 2-8 Dump Mechanism Adjustment

The linkage may be adjusted in two places, at the adjusting screw P#(K1435) and the latch assembly items. See page 10 for visual clarification. To change the door closure tightness, screw the adjusting screw in or out. To adjust the latch, change the length of the latch rod by screwing 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.









## **PTO Parts List**

ltern Number	Document Number	litle	Quantity
Ι	K0348	3/8"-16 x 2" ALL THREAD HHCS	Ι
2	К0047	3/8" FLAT WASHER 1.00 OD x .446 ID x .075 T	5
3	K0353	1/4"-20 x 1/2" HHSTS	8
4	KI159	5/16" 18 x 2" ALL THREAD HHCS	I
5	K1178	5/16"-18 FLANCE NUT	I
6	BI755	BLOWER PIVOT ROD	1
7	коо86	.125 0D x 2.50 HAIR PIN CLIP	2
8	B0121	BLOWER BELT GUARD	1
9	К0356	3/8"-16 TAPERED SET SCREW	1
10	K0326	BELT TENSION ROD 3/8"-16	1
11	коізо	.091 CD x 1.625 L HAIR PIN CLIP	1
12	J0254	3/16" SQ. x 3/4" LONG KEYWAY	1
13	M0228	BLOWER PULLEY	1
14	кі446	1187 OD x .380 ID x .187 WASHER	1
15	к1190	3/8"-16 x 3/4" HHCS	1
16	KI193 3/8" 16 x I 1/2" HHCS		4
17	KI2I5	3/8"-16 FLANCE NUT	12
18	S4302	TAPER-LOCK BUSHING	1
19	53242	PLATED BUSHING	1
20	KI225	I/4"-20 X I" HHCS GRADE 8	2
21	К0278	TAPER-LOCK BUSHING WASHER	1
22	KI2II	3/8"-16 x I-1/2" HHCS GRADE 8	1
23	B0269	GEAR BOX PULLEY GUARD	1
24	B0270	PTO ARM GUARD	1
25	кня	3/8"-16 x I" HHCS	6
26	к1197	3/8"-16 X 2 1/2" HICS	1
27	A0429	GEAR BOX ASSEMBLY	1
28	A0144	BLOWER MOUNT BRACKET ASSEMBLY	1
29	A0604	PTO HANDLE MOUNT ASSY	I
30	A0422	CAM BRACKET ASSEMBLY	1
31	A0306	PTO SHAFT ASSEMBLY	I
32	E4004A	BLOWER HSG. ASSY.	I
33	A0645	SMALL 4-BLADE IMPELLER	I
34	A0622	PTO ARM ASSY.	1
35	A0624	BASE PLATE ASSY.	1

#### 2-9 Blower Cone Installation

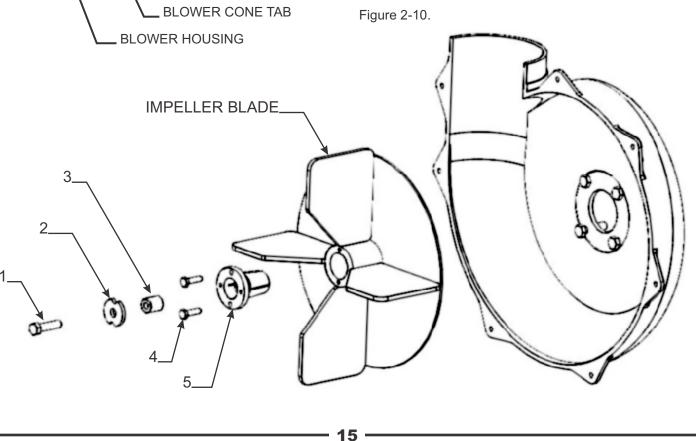
Thread (1) 5/16"-18 jam nut P#(K0120) onto each end of (2) 5/16"-18 x 2-1/2" HHCS P#(K0125). Now partially thread the bolts into each of the two tabs located on the blower housing. Place blower cone so the two tabs line up with the bolts then tighten completely. See Figure 2-9.



#### 2-10 Impeller Blade **Removal/Replacement**

To Remove: First remove the center bolt (#1), washer (#2) and spacer (#3) from the taper-lock bushing (#5). See Figure 2-10. Next remove the (2) 1/4"-20 bolts (#4) and place them into the threaded holes of the taper-lock bushing (next to the holes they were removed from). Gradually thread each bolt evenly into the taper-lock bushing, forcing the blade to break-away from the taperlock bushing. If the impeller will not move, hit the base of the impeller, between each vein, with a hammer, then try

To Replace: Place impeller blade over the engine shaft. Slide the taper-lock bushing on to the engine shaft and into the impeller blade, aligning the non-threaded holes of the taper-lock bushing to the threaded holes of the impeller blade. Fasten by using (2) 1/4"-20 HHCS grade #8 bolts, (1) spacer washer and (1) HHCS bolt w/ washer. Torque to the proper specifications in the torque chart on the back of this manual. Next, rotate the impeller blade to insure that the blade is clear of contact on all sides of the blower housing.



#### 2-11 Boot To Mower Deck Installation

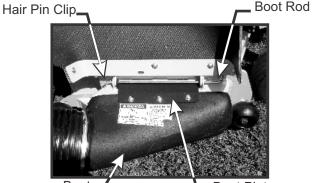
To mount the boot plate P#(B0331) to the boot P#(E1113) use (3) 3/8"-16 x 1" carriage bolts P#(K1182) and (3) 3/8"-16 flange nuts P#(K1215). See Figure 2-11 for bolt placement.

**NOTE:** When bolting the boot and boot plate together, the head of the bolt is placed from the inside of the boot. This will prevent grass from collecting on the bolts.

Remove the bolts that hold the deflector shield in place so that the boot rod can fasten the boot and boot plate to the mower deck. Align the holes in the boot plate to the holes in the deflector shield mount and slide the Warrior boot rod P#(B2540) or the Hornet boot rod P#(B0333) through the deflector shield and boot plate. Fasten by using (1) hair pin clip P#(K0099) as shown in the figures below.

**NOTE:** The mower's deflector shield is removed in the following photo for clarity. Always have the deflector shield mounted when mowing.

Figure 2-11.



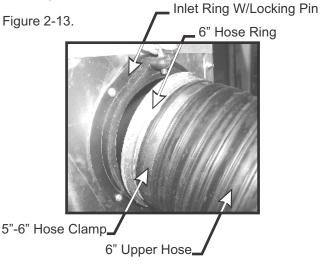
Boot Plate

#### 2-12 Length Of Hose Adjustment

The hoses in steps 2-13 and 2-14 must be cut to fit your machine. Follow steps 2-13 and 2-14. 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.

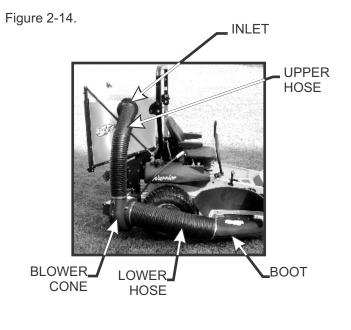
#### 2-13 Upper Hose Installation

Slide (1) 5"-6" upper hose clamp P#(J6011) onto both ends of the 6" upper hose. Place (1) hose ring P#(E0007) into one end of the 6" hose making sure the hose is on at least 2", then tighten the hose clamp. Proceed to slide the opposite end of the 6" hose onto the blower assembly and tighten hose clamp. Place the hose ring onto the inlet ring and tighten the locking pin. See Figure 2-13 for details. Make sure both ends of the hose are securely fastened to the inlet and the blower assembly outlet.



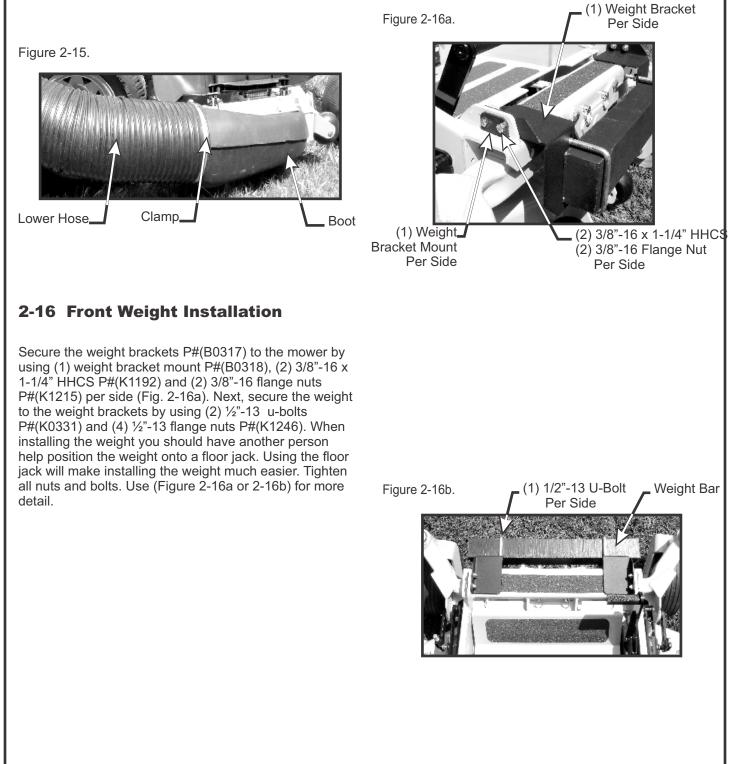
#### **2-14 Lower Hose To Blower Cone** Installation

Slide a 7"-8" hose clamp P#(J6006) 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 2-14).



#### 2-15 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 2-15). Tip: Before securing clamp rotate hose counter-clockwise (away from yourself) approximately 1" to add in retaining boot to mower deck.



## 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. Proceed to section 3-3, and review the section 2-4 and 2-5, in this manual.

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 5 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.

#### **3-3 Disengagement Of The Blower**

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 2-4 and 2-5 of the manual

#### 3-4 Unloading The Collection System

**NOTE:** Press the tab, located behind the operator's left side, downward to feel if the collection system is full. If the container is full there will be resistance when depressing the tab.

- A. Stop the forward movement of the mower.
- 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**

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.
- 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.
- 3. 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.

- 2. 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**

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

- 1. On initial use: Grease the fitting on the blower shaft.
- 2. Every 25 hours of use: Re-grease the grease fitting.
- 3. Every 200 hours of use: Check oil levels in gear box. Oil in gear box should cover the gears. If not, 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.

## THE SERIAL NUMBER PLATE IS LOCATED ON THE ALUMINUM BOX NEAR THE DUMP HANDLE

	PECO OUTDOOR POWER EQUIPMENT					
	Model Number					
	Serial Number					
	Arden, North Carolina 28704					
	RITE THE MODEL AND SERIAL NUMBER IN E BOX ABOVE FOR FUTURE REFERENCE.					
Unit Model Number:						
Unit Engine Size:						
Unit Serial Number:						
Date of purchase://						
Dealer/Distributor Name:						
Address: Sta	ate:Zip:					
Phone Number:						
Address: PECO Inc.						
100 AIRPORT ROAD						
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.



TORQUE SPECIFICATIONS Proper toque for American fasteners used on Peco equipment.								
	RICAN				ue in Foot P			quipment. ers).*
	Bolt Head Markings				SAE GRADE 2		AE ADE 5	SAE GRADE 8
		7/16		- 20 UNC	6 (7)		11)	12 (16)
	Market Contraction of the Contra	7/16		- 28 UNF	6 (8)	·····	(13)	14 (18)
	SAE Grade 2 (No Dashes)			- 18 UNC	11 (15)		(23)	25 (33)
				- 24 UNF	13 (17)		(26)	27 (37)
			3/8 - 16 UNC		20 (27)			44 (60)
			3/8 - 24 UNF		23 (31)			49 (66)
			7/16 - 14 UNC				(66)	70 (95)
			7/16 - 20 UNF				(75)	78 (106)
		5/8	1/2 - 13 UNC		49 (66)		(73)	106 (144)
		3/4		- 20 UNF	55 (75)	· · ·		120 (163)
	Marine Contraction of the Contra	7/8		- 12 UNC	, ,	· · · · · · · · · · · · · · · · · · ·		153 (207)
	SAE Grade 5	7/8		- 12 UNC	79 (107)	70 (95) 109 79 (107) 122		172 (233)
	(3 Dashes)	15/16		- 11 UNC	97 (131)		(203)	212 (287)
	(3 Dasties)			- 18 UNF	110 (149)		(230)	240 (325)
		<u> </u>		- 10 UNC	144 (195)		(360)	376 (509)
				- 16 UNF	192 (260)		(402)	420 (569)
	Bolt Bolt	1-5/16		- 9 UNC	166 (225)		(583)	606 (821)
	Diamete	1-5/16	7/8 - 9 UNC 7/8 - 14 UNF				(642)	668 (905)
	S X	1-1/2		- 8 UNC	250 (339)		(873)	909 (1232)
				12 UNF	274 (371)		(955)	995 (1348)
Wrench				14 UNF	280 (379)		(977)	1019 (1381)
Size "A"	(6 Dashes)	1-1/2	1-1/8 - 7 UNC		354 (480)		(077)	1288(1745)
<b>≜</b>		1-11/16	1-1/8 - 12 UNF		397 (538)		(1206)	1444 (1957)
		1-7/8	1-1/4 - 7 UNC		· · · · · · · · · · · · · · · · · · ·		(1518)	1817 (2462)
		1-7/8		4 - 12 UNF	553 (749)		(1682)	2013 (2728)
		2-1/16	1-3/	8 - 6 UNC	655 (887)		(1992)	2382 (3228)
	2-1/16 2-1/4		1-3/8 - 12 UNF			746 (1011) 1672		2712 (3675)
			1-1/	1-1/2 - 6 UNC		·	(2642)	3161 (4283)
2-1/4			1-1/2	2 - 12 UNF	979 (1327		(2973)	3557 (4820)
METRIC	a01. 19	; -			etric fastene torque in fo		Peco newton M	equipment. leters).*
	Diameter B		WRENCH SIZE (mm) "A"	BOLT DIA. (mm) "B"	ASTM 4.6	ASTM 8.8	ASTM 9.8	ASTM 10.9
	Nrench Size "A" 8.8		8	5	1.8 (2.4)		5.1 (6.9)	and the second se
Wrench			10	6 8	3 (4) 7.3 (10)		8.7 (12) 21.1 (29)	11.1 (15) 27 (37)
			16	10	14.5 (20)		42 (57)	53 (72)
				12	25 (34)	74 (100)	73 (99)	93 (126)
Numbers appearing on bolt heads		21	14	40 (54)	118 (160)	116 (157		
indicate ASTM class.			24	16 20	62 (84) 122 (165)	167 (226) 325 (440)	181 (245)	230 (312) 449 (608)
			33	20	122 (100)	443 (600)		611 (828)
			36	24	211 (286)	563 (763)		778 (1054)
			41 46	27	A19 (500)	821 (1112)		1138 (1542)
			40	30	418 (566)	1119 (1516)		1547 (2096)



100 AIRPORT ROAD ARDEN, NORTH CAROLINA 28704 (800) 438-5823 OR (828) 684-1234 FAX: (828) 684-0858 EMAIL: peco@lawnvac.com WEBSITE: www.lawnvac.com