

## GRASS COLLECTION SYSTEM

## DESIGNED FOR: BOB-CAT

### PROCAT AND PREDATOR PRO F-SERIES & G-SERIES 2008-2012



# **OPERATOR'S MANUAL**

## **ASSEMBLY • OPERATION • MAINTENANCE**

MANUAL PART#: Q0421

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### **Safety**

- 1. Read the operator's manual carefully and familiarize yourself with the proper use of your attachment. Do not allow anyone who is not acquainted with the Safety Instructions to use your attachment.
- 2. Know the controls and how to stop quickly. READ THE OPERATOR'S MANUAL!
- **3.** Do not allow children to operate the vehicle. Do not allow adults to operate it without proper instruction.
- **4.** Be especially watchful of children and pets darting into the area while operating.
- 5. Keep your eyes and mind on your unit while mowing or operating your attachment. Don't let others distract you.
- 6. Do not attempt to operate your unit or mower when not in the driver's seat.
- **7.** Always stop unit when emptying the container.
- 8. Stop unit, shut off deck attachment, set parking brake, shut off mower engine and remove spark plug wire before removing clogs, removing or replacing hose, boot, blower cone, or performing any maintenance.
- 9. Mow 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

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.



White letters on **RED** 



Black letters on **ORANGE** 



Black letters on YELLOW

This signal word indicates a potentially hazardous situation which, if not

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.

avoided, will result in death or serious injury.

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

It may also be used to alert against unsafe practices.

#### **PECO LIMITED WARRANTY FOR NEW PRODUCTS**

#### A. WHAT IS UNDER WARRANTY?

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

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

#### of the product to the original purchaser. ALL DEFECTIVE PARTS MUST BE RETURNED TO PECO

#### FOR INSPECTION TO DETERMINE VALIDITY OF WARRANTY CLAIMS. Freight and mailing

will

be borne by the customer.

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

#### **B. SECURING WARRANTY ADJUSTMENTS.**

Call PECO for Return Authorization. Damaged or broken parts other than engines or batteries, must be returned to New PECO Inc., 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 of the date of delivery of the product. The purchaser shall pay any charge for the product to and from Arden, NC.

#### C. ITEMS NOT COVERED BY PECO WARRANTY.

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

#### D. UNAPPROVED ALTERATION OR MODIFICATION.

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

#### E. ACCIDENTS AND NORMAL MAINTENANCE.

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

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

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

#### G. ANY MACHINE USED FOR RENTAL PURPOSES ARE GUARANTEED FOR 45 DAYS FROM DATE

#### **OF ORIGINAL SALE ONLY.**

#### H. REMEDIED EXCLUSIVE.

The only remedies the purchaser has in connection with the breach or performance of any warranty on New PECO Inc. consumer products are set forth above. In no event will PECO be liable for special incidental or consequential damages.

#### **1. NO SERVICE CENTER WARRANTY.**

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

### Section I INTRODUCTION AND DESCRIPTION

#### **1-1 Introduction**

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.

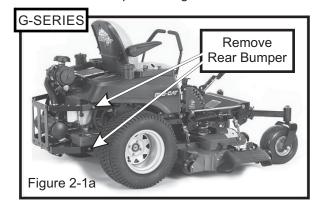
#### **1-2 Description**

The collection system is designed for turf maintenance where there is a need to collect the grass clippings as the mower cuts the turf. The collection system is also good for picking up leaves and twigs in pre-season and post-season clean-up. The engine/blower/blade assembly, is mounted on the right side of the unit. 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 engine/blower/blade assembly by starting the engine. Once the bags are full, they can be released for easy dumping.

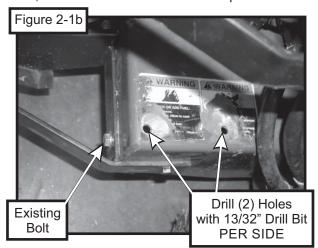
### Section II INSTALLATION FOR USE

#### 2-1 Preparation Of Mower

Carefully dismantle wooden the shipping crate from around the components. Cut the 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 part drawings on pages 13 through 15. Remove the bumper from the rear frame of the mower before proceeding.

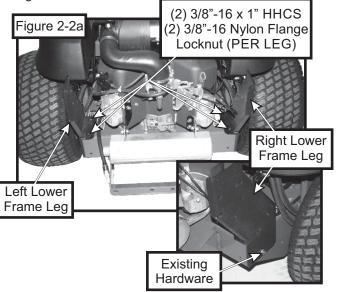


On the rear right side of the mower chassis drill two 13/32" holes. There are several ways of doing this, the best is to remove the bolt that connects the lower rear bumper to the mower's chassis (Figure 2-1b) and loosely fasten the right lower frame leg assembly P#(A0679) with the existing bolt and nut to use as a template. Use a center punch to mark the holes, then remove the right lower frame leg assembly. Another way to mark the holes is to use the full scale drill template to center-punch the holes (Page 21), or by using the dimensions provided on the drill template for laying out the holes. We recommend when laying out the holes to use a square and a metal scribe. **NOTE:** For the F-Series mower, follow the instructions listed for the G-Series, but do not remove the rear bumper.

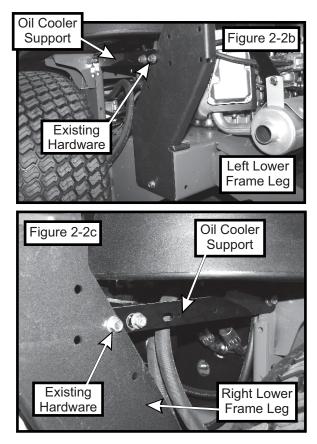


#### 2-2 Left and Right Lower Frame Leg Installation

Secure the left lower frame leg P#(A0681) and the right lower frame leg P#(A0679) to the rear frame of the mower, using (2) 3/8"-16 x 1" HHCS P#(K1191), (2) 3/8"-16 nylon flange locknuts P#(K2038) (PER LEG) and existing hardware removed from the rear bumper. Refer to Figure 2-2a.

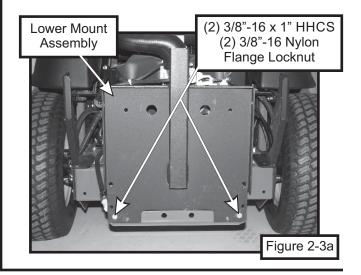


<u>G-SERIES ONLY:</u> Secure the oil cooler support to the left and right lower frame legs using existing hardware from the bumper removal. It may be necessary to loosen all hardware on the oil cooler support in order to align the mounting hole on the frame leg. Once the support is secured to the leg, tighten all hardware. Refer to Figure 2-2b and 2-2c.

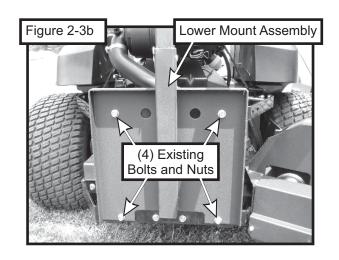


#### 2-3 Lower Mount Assembly Installation

**<u>G-Series</u>**: Secure the lower mount assembly P#(A0672) to the rear frame of the mower using (2) 3/8"-16 x 1" HHCS P#(K1191) and (2) 3/8"-16 nylon flange locknuts P#(K2038). Refer to Figure 2-3a.

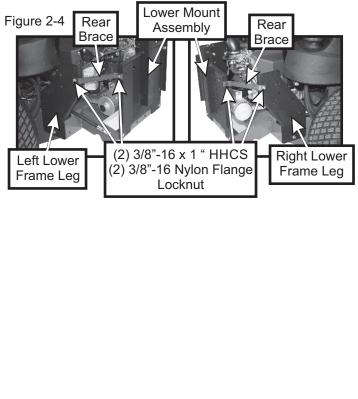


**F-Series:** To mount the lower mount assembly P#(A0672) to the rear of the mower, first remove the mower's (4) existing nuts and bolts. Once the nuts and bolts are removed place the lower mount assembly onto the rear of the mower, and secure using the (4) existing nuts and bolts that were removed from the mower (Figure 2-3b).



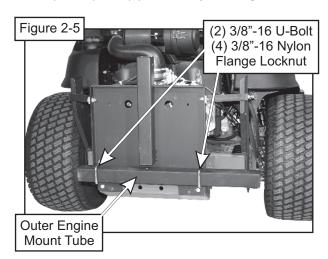
#### **2-4 Rear Brace Installation**

<u>G-SERIES ONLY:</u> Secure (1) rear brace P#(B0668) to the lower mount assembly and the left lower frame leg. Use (2) 3/8"-16 x 1" HHCS P#(K1191) and (2) 3/8"-16 nylon flange locknuts P#(K2038). Secure (1) rear brace P#(B0668) to the lower mount assembly and the right lower frame leg. Use (2) 3/8"-16 x 1" HHCS P#(K1191) and (2) 3/8"-16 nylon flange locknuts P#(K2038). Refer to Figure 2-4.



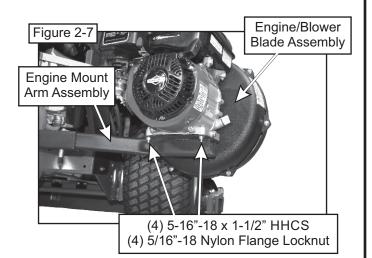
#### 2-5 Outer Engine Mount Tube Installation

Position the outer engine mount tube P#(B1117) as shown in Figure 2-5. Secure the outer engine mount tube to the lower mount assembly using (2) 3/8"-16 ubolts P#(K1119) and (4) 3/8"-16 nylon flange locknuts.



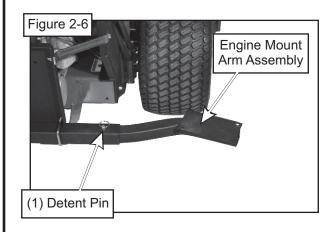
## 2-7 Engine/Blower/Blade Assembly Installation

Position the engine/blower/blade assembly on top of the engine mount arm assembly and secure with (4) 5-16"-18 x 1-1/2" HHCS P#(K1157) and (4) 3/8"-16 nylon flange locknuts P#(K2516). Refer to Figure 2-7.



## 2-6 Engine Mount Arm Assembly Installation

Insert the engine mount arm assembly P#(A1824) into the outer engine mount tube and align the mounting holes on both parts. Secure the engine mount arm assembly to the outer engine mount tube using (1) detent pin P#(J0248). Refer to Figure 2-6.



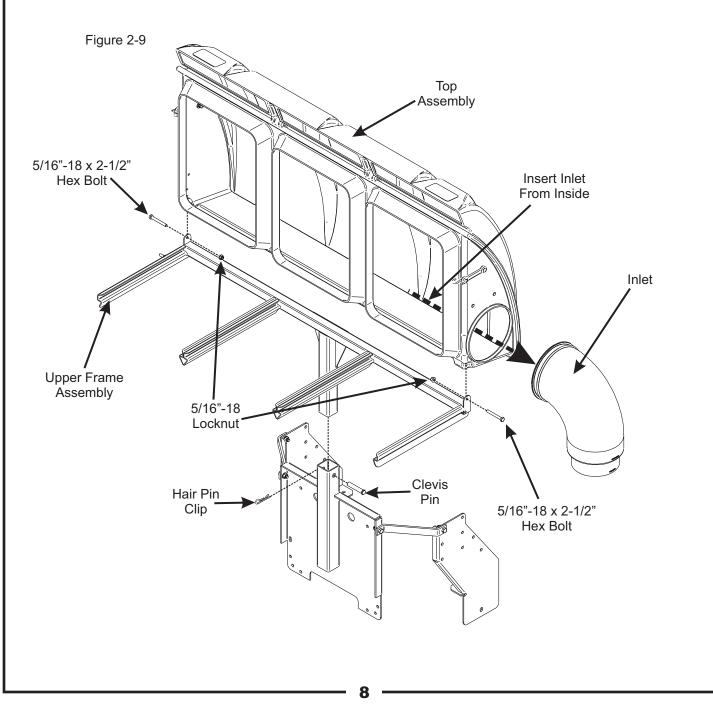
#### 2-8 Upper Frame Assembly Installation

Lift the upper frame assembly P#(A1838) into position above the lower mount assembly. Insert the vertical tube on the lower mount assembly into the vertical tube on the upper frame assembly. Secure the upper frame assembly using (1) clevis pin P#(K0133) and (1) hair pin clip P#(K0088). Refer to Figure 2-9.

#### 2-9 Top Assembly To Upper Frame Assembly Installation & Inlet Installation

Position the top assembly P#(A1157) above the upper frame assembly as shown in Figure 2-9. 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 2-9 for hardware location.

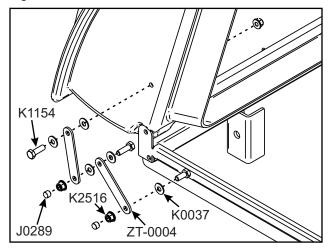
From the inside of the top assembly, slide the inlet P#(V0025) into the hole on the bagger top until the inlet locks into place. The inlet should pivot 360 degrees about the hole in the bagger top. Refer to Figure 2-9.



#### 2-10 Hinge Kit Assembly Installation

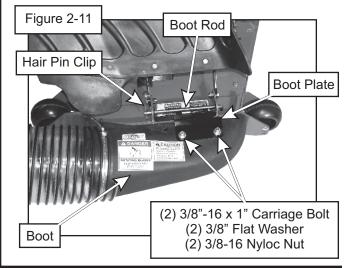
Assemble the hinge kit as shown in Figure 2-10, using (2) 5/16"-18 x 1" HHCS P#(K1154), (3) 5/16"-18 nylon flange locknuts P#(K2516), (5) 1/4" flat washers P#(K0037) and (2) swing arm brackets P#(ZT-0004). Place (1) vinyl cap P#(J0289) on the end of the hex bolts as shown in Figure 2-10. Leave the nuts 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.

Figure 2-10



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

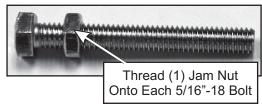
Secure the boot plate P#(B0673) to the mower deck using (1) boot rod P#(B0288) and (1) hair pin clip P#(K0099). Secure the boot P#(E1030) to the boot plate using (2) 3/8"-16 x 1" carriage bolt P#(K1182), (2) 3/8" flat washer P#(K0047), and (2) 3/8"-16 nyloc nut P#(K1216). Insert the carriage bolt from the inside of the boot so that the threads are on the outside. This will prevent grass clippings from collecting on the threads. Refer to Figure 2-11.



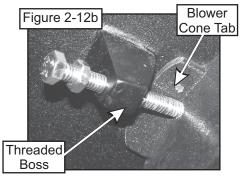
#### 2-12 Blower Cone Installation

Thread (1) 5/16"-18 jam nut P#(K0120) onto each end of (2) 5/16"-18 x 2-1/2" HHCS P#(K0125) as shown in Figure 2-12a.

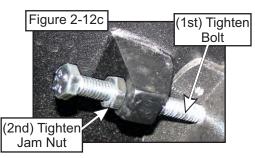
Figure 2-12a



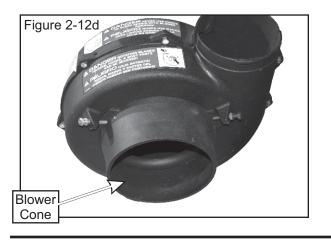
Now partially thread (1) bolt into each of the two threaded bosses located on the blower housing. Place blower cone so the two tabs line up with the bolts and tighten completely as shown in Figure 2-12b.



Once the (2) bolts are tight, tighten the jam nuts against the threaded boss as shown in Figure 2-12c.



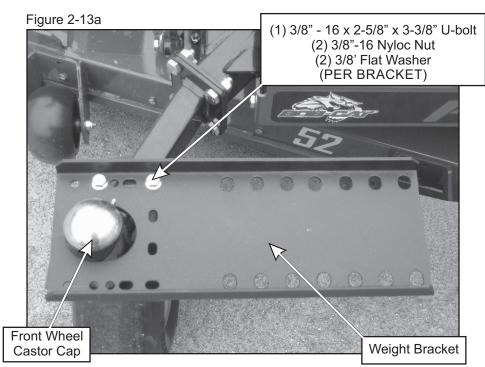
Refer to Figure 2-12d for proper blower cone installation reference.



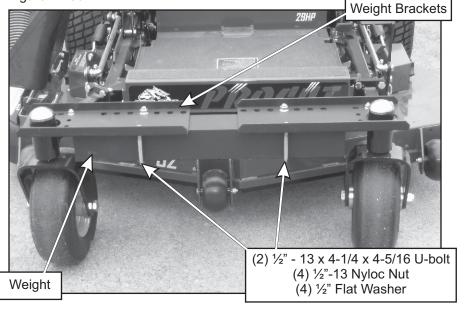
#### 2-13 Front Weight Assembly Installation

**NOTE:** A floor jack should be used to help position weights onto the brackets. When installing the weights you should have another person to help position the weights. Align the weight bracket holes over the front wheel castor cap (Figure 2-13a). Secure brackets with (1) 3/8"-16 x 2-5/8" x 3-3/8" U-bolt P#(K1460), (2) 3/8" flat washers P#(K0047) and (2) 3/8"-16 nyloc nuts P#(K1216) per side. The U-bolt is inserted from the bottom. Repeat steps for weight bracket on opposite side.

Position the weight P#(B0026) under the weight brackets and secure with (1)1/2"-13 x 4-1/4" x 4-5/16" U-bolt P#(K0331), (2) 1/2" flat washers P#(K0055) and (2) 1/2"-13 nyloc nuts P#(K1247) per side (Figure 2-13b).







#### 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 allow for enough clamping surface between the inlet, blower assembly, and the deck boot, but have to remain short enough to prevent hose "kinks".

#### 2-15 Upper Hose Installation

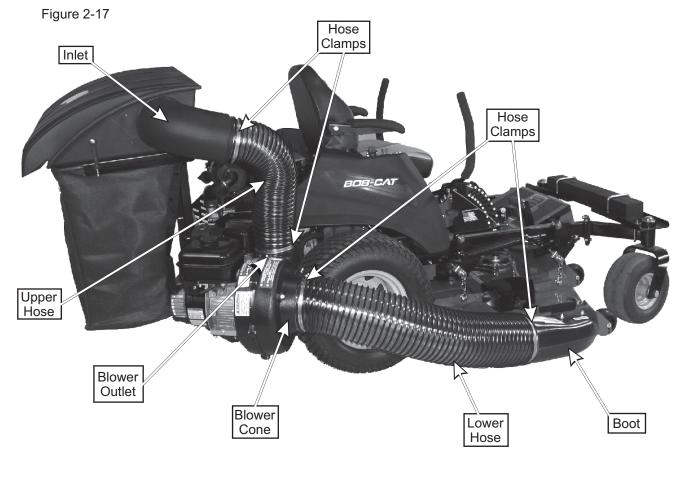
Slide a 6" hose clamp P#(J0060) onto both ends of the 6" upper hose P#(F0001) (Figure 2-12). Then slide one end of the 6" hose onto the inlet. Make sure there is about a two-inch overlap between the hose end and the container inlet. Proceed to slide the opposite end of the 6" hose onto the outlet of 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 add in retaining boot to mower deck.



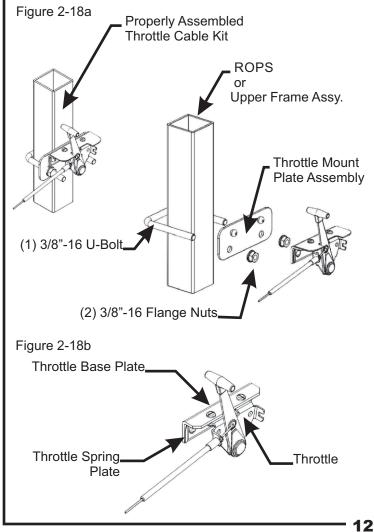
#### 2-18 Throttle Cable Installation

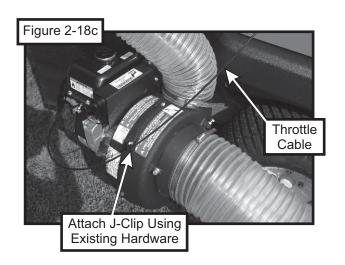
To install the throttle cable kit to the ROPS (roll over protection system), place the 3/8" U-Bolt P#(K0136) onto the ROPS with the threads facing the front of the mower. Next slide on the throttle mount plate assembly P#(A0666) with the rivets also facing toward the front of the mower. Tighten the throttle mount plate assembly securely to the ROPS using (2) 3/8"16 flange nuts P#(K1215) (Figure 2-18a). With the throttle cable facing toward the engine/blower/blade assembly, place the throttle base plate over the rivets, Slide the throttle cable kit to the right, moving the smaller end of the slot over the rivets. When positioned correctly, the throttle spring plate will snap into place (Figure 2-18b).

**NOTE:** If mower is not equipped with a ROPS Intall the throttle cable kit to the upper frame assembly P#(A0585) using the same steps as above. Make sure to locate the throttle cable kit were it can be easily accessed from the operator's seat.

To remove the throttle cable kit, lift the throttle spring plate and slide the throttle kit to the left.

Route cable over upper hose as shown in Figure 2-18c.

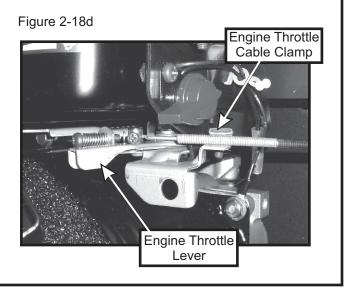




When routing the throttle cable from the ROPS to the engine, attach (1) J-clip P#(K1455) included in the throttle kit hardware bag, to the blower housing, using existing hardware as shown in Figure 2-18c.

To fasten the throttle cable end to the engine, place the throttle control lever into the "stop" position. Rotate the engine throttle lever to the "stop" position. Thread the wire end of the throttle cable into the engine throttle lever eyelet and tighten the screw. Fasten the throttle cable sleeve to the clamp on the engine throttle (Figure 2-18d). Rotate the throttle control lever into the "fast" position to check for proper installation.

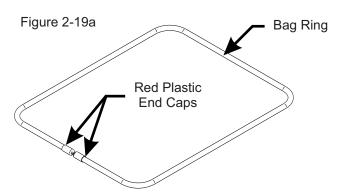
**NOTE**: Cable sleeve may need to be cut, depending on the engine type. Once throttle cable is attached, pull the box handle to dump the box and be sure the cable does not alter the movement of the box.



#### 2-19 Installation/Removal Of Collection Bags

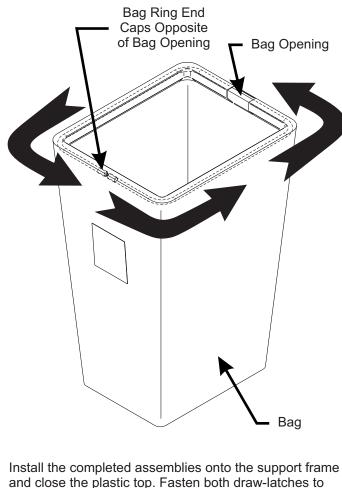
#### **IMPORTANT!**

To prevent bag wear, install (2) red plastic end caps P#(J0274), as shown in Figure 2-19a, 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  $(360^\circ)$  so the plastic end caps are located opposite to the opening in the bag (Figure 2-19b). Do this for each of three bags.

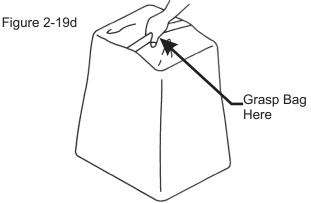
Figure 2-19b



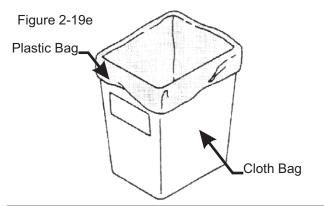
hold the plastic top closed (Figure 2-19c).

Figure 2-19c Plastic Top Plastic Top Fasten Draw -Latch Here & Opposite Side For Proper Unit Transportation

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 2-19d). 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 2-19e).



#### 2-20 Impeller Blade Removal/Replacement

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

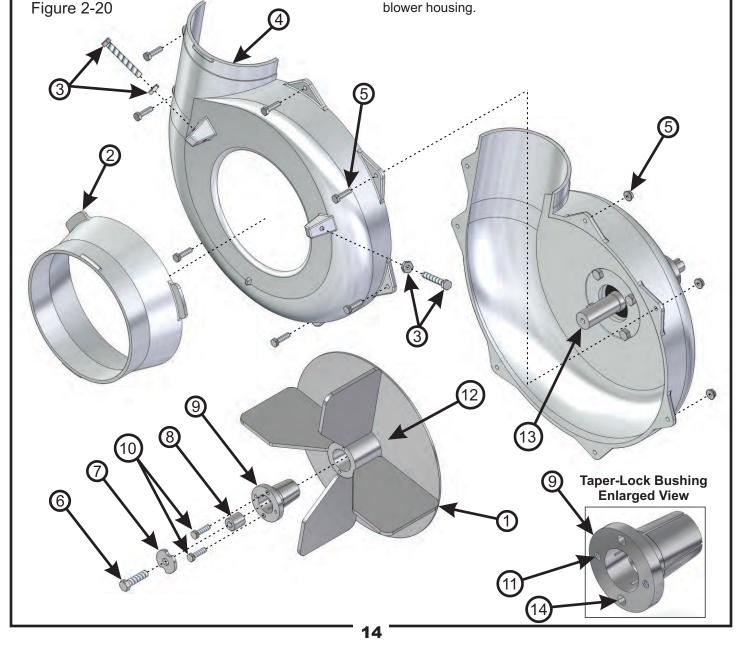
**To Remove:** First, remove one 3/8"-16 x 1-1/2" HHCS P#(K1211) (#6), one taper-lock bushing washer P#(K0278) (#7) and one spacer bushing P#(S3242) (#8) from the taper-lock bushing (#9). See Figure 2-20. Next, remove two 1/4"-20 x 1" HHCS (#10) and place them into the threaded holes (#11) of the taper-lock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

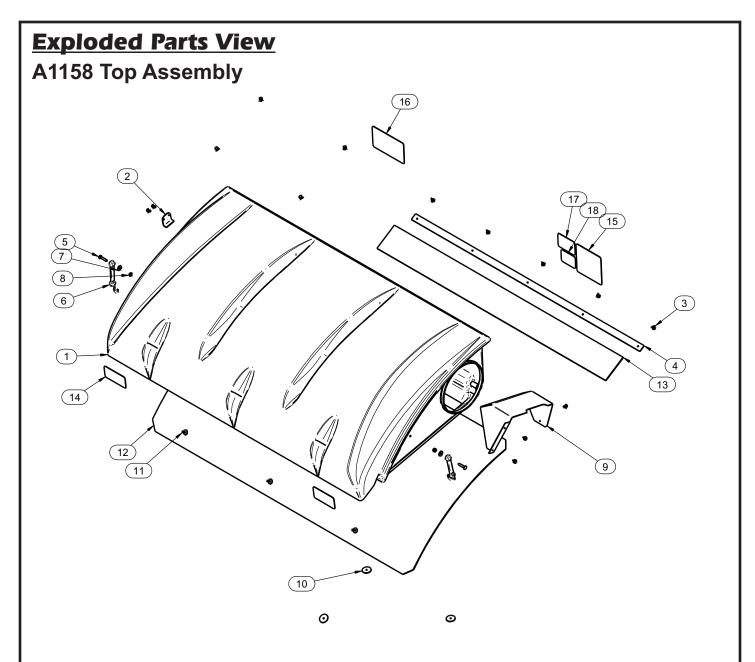
#### Tips on removing impeller blade;

1 - Try carefully hitting the base of the impeller blade (#1), between each vein (#12), with a rubber mallet to loosen the taper-lock bushing hold.

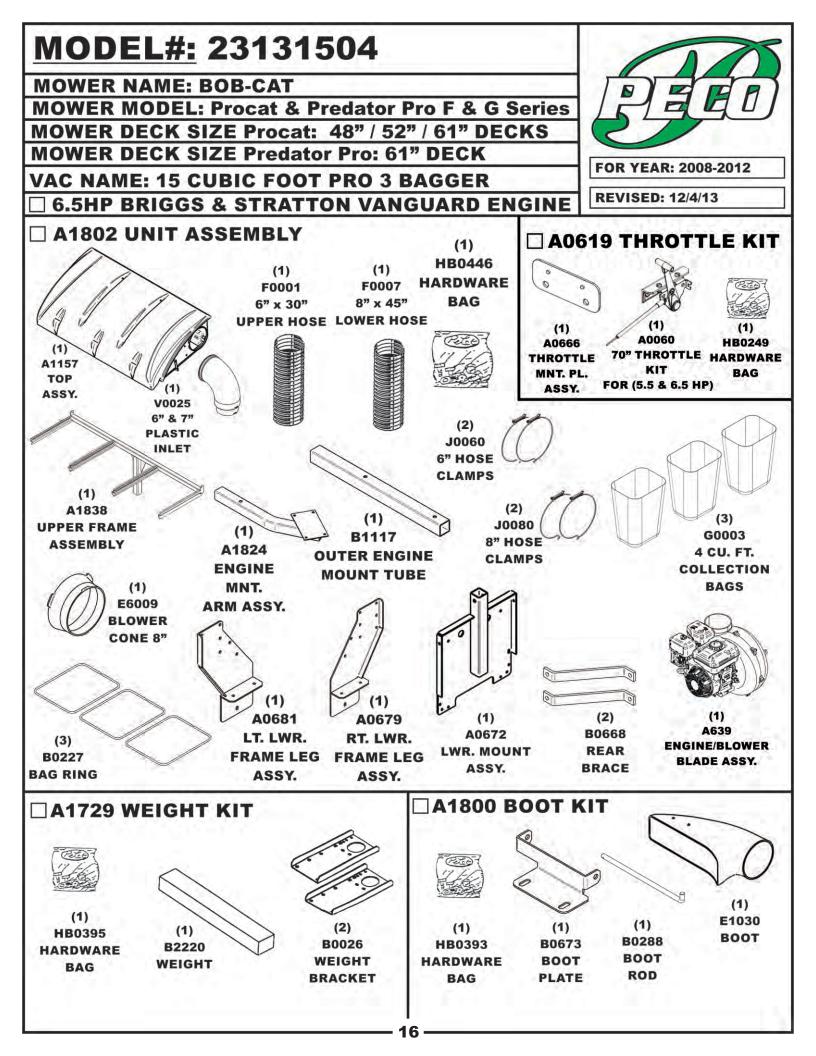
2 - Spray break-free lubricant into the surrounding areas of the taper-lock bushing **(#9)** and repeat Tip 1.

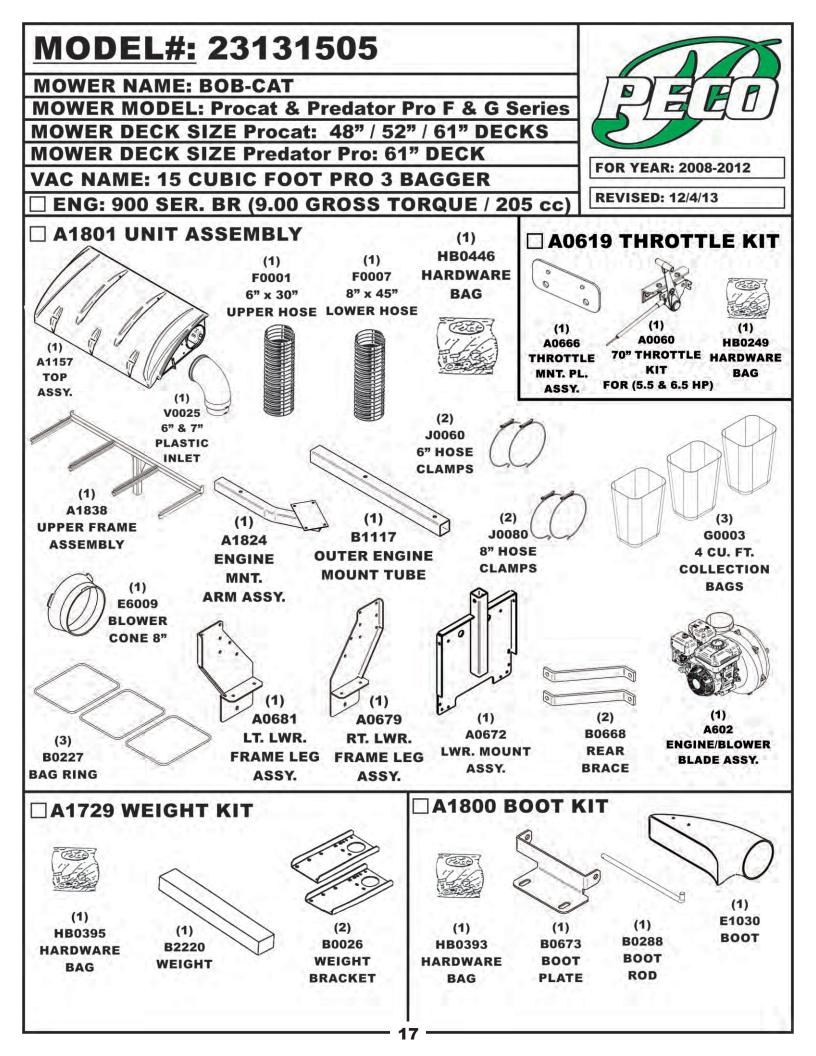
<u>To Replace</u>: First, place the impeller blade (#1) over the drive shaft (#13). Next, slide the taper-lock bushing (#9) on to the drive shaft and into the impeller blade, aligning the **non-threaded** holes (#14) of the taper-lock bushing to the threaded holes of the impeller blade. Then, fasten by using two  $1/4"-20 \times 1"$  HHCS (#10), one spacer bushing (#8) one taper lock bushing washer (#7), and one  $3/8"-16 \times 1-1/2"$  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 blower housing.





Item #	Doc #	Title	Qty
1	V0022	PRO 3 BAGGER TOP	1
2	B0676	Hinge Stop PI.	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	Black Plastic Screen	1
13	V1118	DUST GUARD	1
14	R1057	2" x 4" Red Reflector Label	2
15	R1069	Warning - Turn Off Blower Label	1
16	R1065	Made In USA Label	1
17	R1054	Important Check Hoses	1
18	R1051	Warning - Use Hearing Protection	1





### SECTION III OPERATING INSTRUCTIONS

#### **3-1 General Safety**

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

#### 3-2 Operation & Tips On Mowing

- A. Perform BEFORE EACH USE maintenance list in paragraph 4-1.
- B. Start the engine/blower/blade assembly.
- B. Start mower.
- C. With the mower at high idle speed, engage the mower deck.
- D. Proceed to operate the control levers of the mower.

**NOTE:** If the collection system does not appear to be collecting the grass clippings; disengage the deck, and blower, engage the parking brake and turn the mower off. Check the upper hose, lower hose, top screen and boot for clogs.

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

- \* 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 sloped, etc.

#### **3-3 Unloading The Collection System**

- A. Stop the forward movement of the mower.
- B. Disengage the mower deck.
- C. Using the throttle cable slow the engine down to idle.
- 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 lifting the plastic hood. Load in bags should not exceed the height of the installed bag.
- F. To release bags from frame, lift bag ring from tab on bagger frame, slide bag out and turn bags over to deposit clippings.
- G. Follow steps on page 17 to re-attach bags back to the bagger.

**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

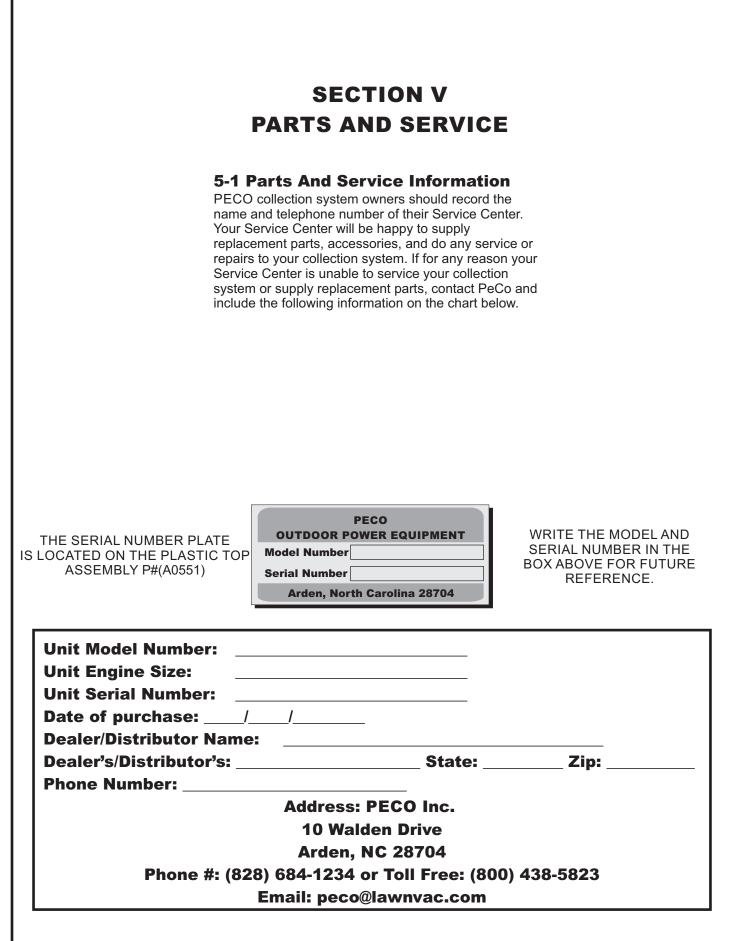
#### **4-1 Maintenance Checklist**

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. Listen for abnormal sounds, which might indicate loose parts, damaged bearings, or other damage. Correct any deficiency before continuing operation.
- 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, and off of safety decals. Replace any missing or illegible decals.
- 2. Clean all debris from the box screen.
- Inspect unit for worn or damaged components. Repair or replace before the next use. Any replacement component installed during repair shall include the components current safety decal specified by the manufacturers to be affixed to the component.

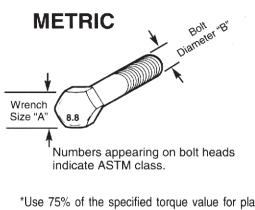


### SAFETY DECALS

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.



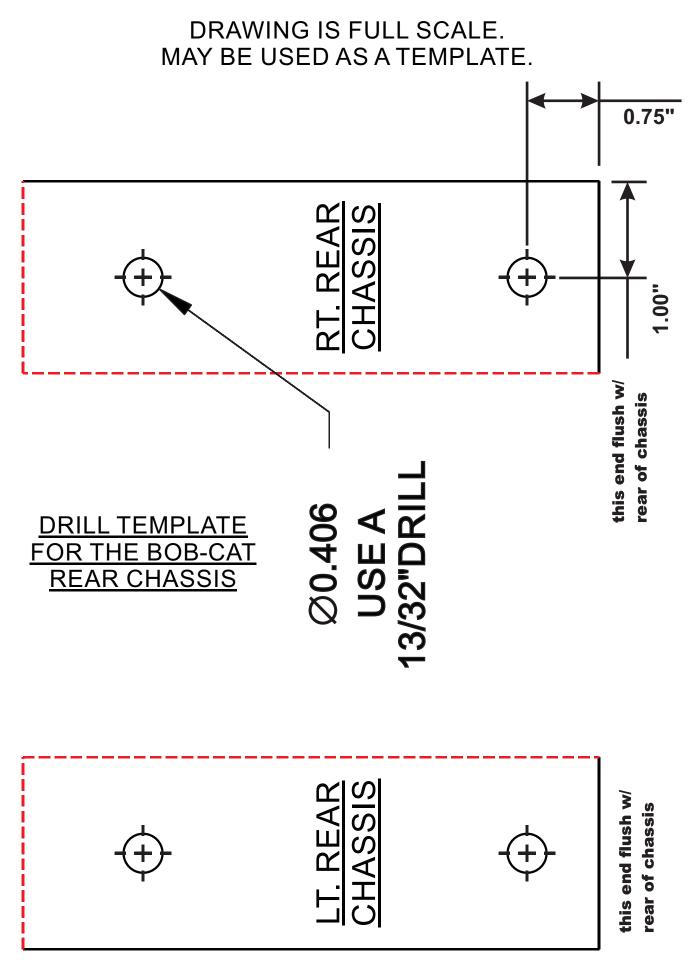
AMERICAN		oque for American commended Torqu			equipment. ters).*
Bolt Head Markings	WRENCH SIZE (IN.) "A"	BOLT DIAMETER (IN.) "B" AND THREAD SIZE	SAE GRADE 2	SAE GRADE 5	SAE GRADE 8
	7/16	1/4 - 20 UNC	6 (7)	8 (11)	12 (16)
	7/16	1/4 - 28 UNF	6 (8)	10 (13)	14 (18)
	1/2	5/16 - 18 UNC	11 (15)	17 (23)	25 (33)
SAE Grade 2 (No Dashes)	1/2	5/16 - 24 UNF	13 (17)	19 (26)	27 (37)
(NO Dashes)	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)
SAE Grade 5	7/8	9/16 - 18 UNF	79 (107)	122 (165)	172 (233)
(3 Dashes)	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)
کم ور	1-1/8	3/4 - 16 UNF	192 (260)	297 (402)	420 (569)
Diameter "B	1-5/16	7/8 - 9 UNC	166 (225)	430 (583)	606 (821)
Diant	1-5/16	7/8 - 14 UNF	184 (249)	474 (642)	668 (905)
	1-1/2	1 - 8 ŲNC	250 (339)	644 (873)	909 (1232)
	1-1/2	1 - 12 UNF	274 (371)	705 (955)	995 (1348)
/rench ize "A" SAE Grade 8	1-1/2	1 - 14 UNF	280 (379)	721 (977)	1019 (1381
(6 Dashes)	1-11/16	1-1/8 - 7 UNC	354 (480)	795 (1077)	1288(1745
Т	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



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

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)

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### **NOTES**



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