

ATTACHMENT OPERATOR'S MANUAL



Turbo Vacuum System

Mfg. No.	Description
1696447-00	Turbo, 48" Fabricated Mower Deck

Not for
Reproduction

Parts / Hardware	4
Operator Safety	6
Assembly	8
Initial Installation	8
Mower Preparation - Disassembly	8
Pulley Installation.....	10
Turbo Installation	11
Install Cover Seal & Tube.....	12
Attach Triple Collector Plate & Edging	13
Install Cover & Collector Bag.....	13
Tube Installation	13
Assembly for Models with Frame-Hung Mowers	14
Remove Lift Rod	14
Operation	16
Before Operation	16
Mowing with the Turbo.....	16
Mowing without the Turbo	16
Recommended Accessories	16
After Operation.....	16
Turbo Removal.....	17
Remove Turbo & Tubes.....	17
Storage	19
Warranty	20

NOTE: In these instructions, “front”, “back”, “left” and “right” are referenced from the operating position.

NOTE:

Capital letters refer to NEW HARDWARE.

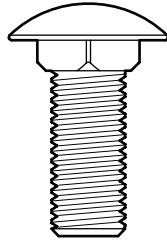
Lower case letters refer to EXISTING PARTS and HARDWARE.

Parts / Hardware

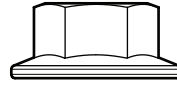
A - PIVOT ASSEMBLY
(Qty. 1)



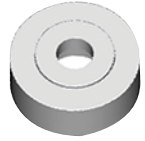
B - CARRIAGE BOLT
.375"-16 x 1.0" (Qty. 1)



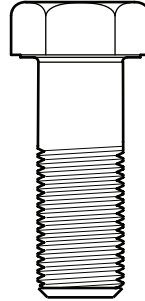
C - NUT, Whiz Lock
.375"-16 (Qty. 1)



D - PULLEY SPACER
(Qty. 1)



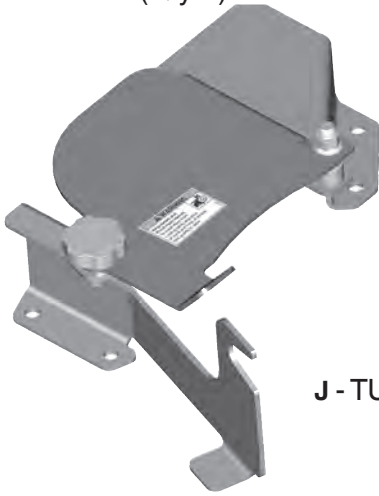
G - CAPSCREW
.4375"-14" (Qty. 1)



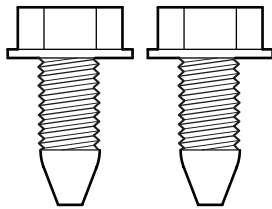
E - PULLEY HUB
(Qty. 1)



H - PULLEY COVER ASSEMBLY
(Qty. 1)



I - SCREW, Taptite
.3125" - 18 x .750"
(Qty. 1, Includes 1 extra)

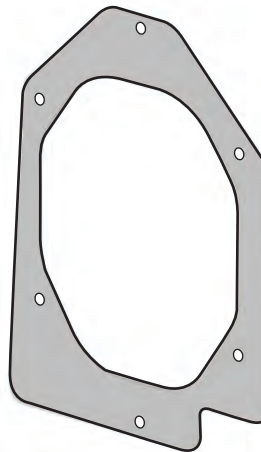


F - PULLEY
(Qty. 1)

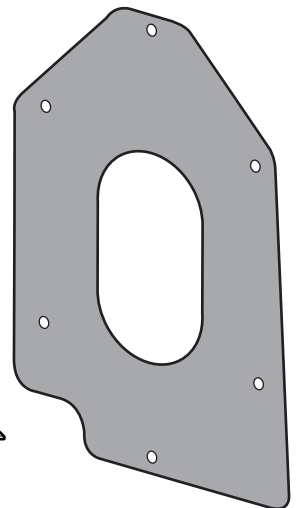


J - TURBO ASSEMBLY
(Qty. 1)

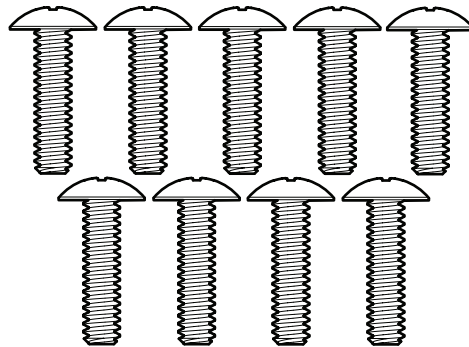
K - FLANGE SEAL
(Qty. 1)



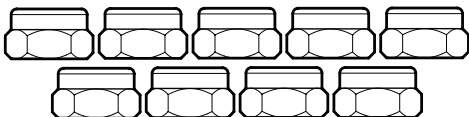
M - COVER SEAL
(Qty. 1)

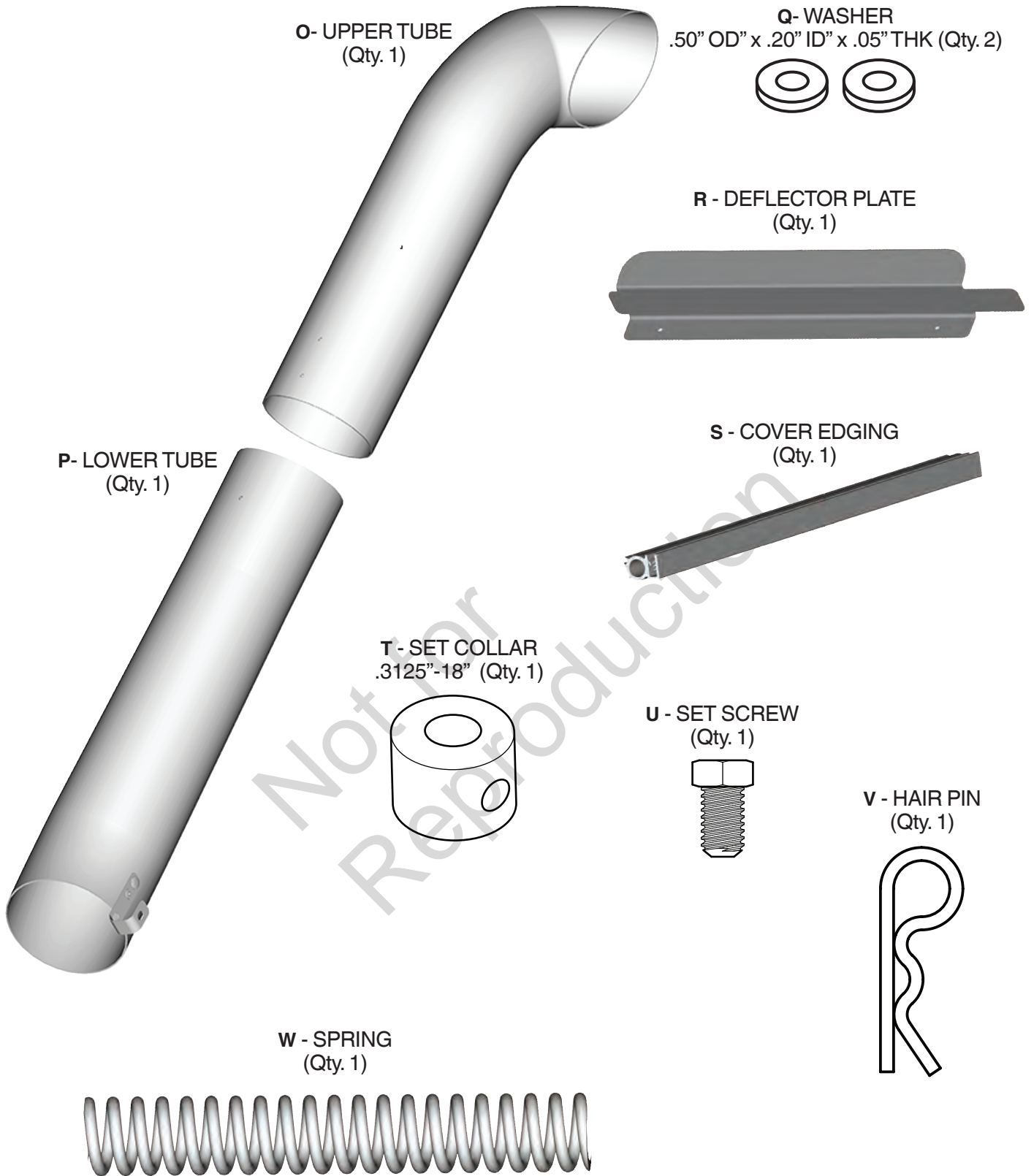


L - SCREW, Phillips
10 - 24 x .750" (Qty. 9)




N- NUT, Nylock
10 - 24 (Qty. 9)







Operator Safety

Safety Alert Symbol and Signal Words

The safety alert symbol  is used to identify safety information about hazards that can result in personal injury. A signal word (**DANGER, WARNING, or CAUTION**) is used with the alert symbol to indicate the likelihood and potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.

 **DANGER** indicates a hazard which, if not avoided, will result in death or serious injury.

 **WARNING** indicates a hazard which, if not avoided, could result in death or serious injury.

 **CAUTION** indicates a hazard which, if not avoided, could result in minor or moderate injury.

NOTICE indicates an action that could result in damage to the product.

WARNING

Failure to read and follow the safety warnings and instructions in this document and in the tractor's operator's manual could result in death, serious injury, and/or property damage.

The warnings and instructions must be read, understood, and followed when setting-up, operating, servicing, transporting, or storing the unit.

DANGER

- Before beginning and service work on the tractor or collection system, turn off the PTO, set the parking brake, stop the engine, and remove the key.
- DO NOT operate the unit without either the entire grass catcher or the deflector in place.
- Turn off the PTO to disengage the blades when not mowing.
- DO NOT mow in reverse unless absolutely necessary. Always look down and behind before and while traveling in reverse.
- DO NOT turn sharply when traveling alongside a building or any object. Slow down before turning.

DANGER

Amputation or Laceration Hazard

- If the mower stalls or the collection system plugs, disengage the electric clutch (PTO), stop the engine and remove the key. Set the parking brake. Wait for moving parts to stop. Remove the foreign object or clear the chute with a piece of wood before restarting the engine. Never place hands into blower housing to clear jammed object.
- Disengage the electric clutch (PTO). Shut off the engine, remove the key, and wait for all moving parts to stop before attaching, adjusting, or disconnecting any part of the collection system.
- DO NOT make adjustments or repairs while the engine is running or blades are moving.
- DO NOT place hands or feet near rotating parts.

WARNING

Thrown Objects Hazard

Do not open the hopper while the blades are turning.

- Check the collection system to make sure it is bolted tightly to the unit.
- Collector bags are subject to deterioration and wear during normal use. Inspect the bag periodically for tears, holes, or weak spots and replace with a new bag that meets manufacturer's durability standards.

WARNING

Loss of Control, Roll-over and Tipping Hazard

- Use reduced speed on uneven ground and when turning corners.
- Reduce loads on hillsides. It is recommended that the collection system be kept only half full when negotiating any slopes. Start mowing on slopes when the collection system is empty.
- Mow up and down the face of slopes; never across the face of any slope.
- **Never operate on slopes greater than 17.6% (10°).**
- Select slow ground speed before driving onto a slope. Avoid using brakes to control speed.
- Use caution when changing directions and DO NOT start or stop on a slope.

Before operating the turbo unit, read and understand the installed safety decals. The decals are provided to help you avoid personal injury or damage to the product.

If any safety decals become damaged or illegible, order replacements from your local authorized dealer.

Safety Decal

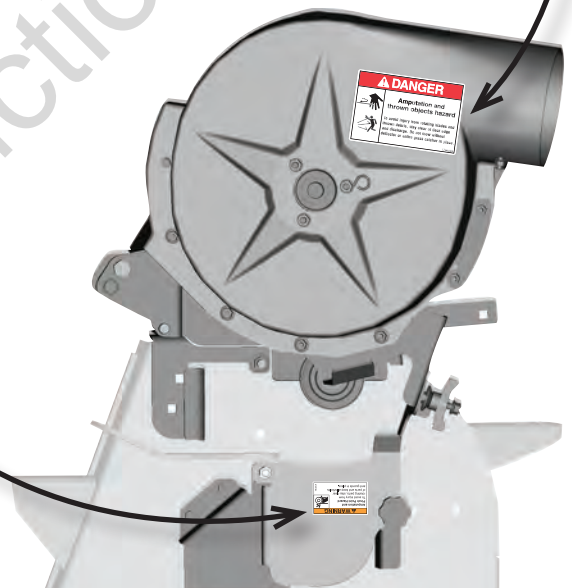


Part No. 1700259
Amputation Danger Decal



Part No. 5103184
Amputation Warning Decal

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Assembly

WARNING

Before beginning any service work turn off the PTO, set the parking brake, turn off the ignition, and disconnect the spark plug wire(s).

Initial Installation

NOTE: For ease of assembly, ensure mower deck is set in the lowest cut position.

Mower Preparation - Disassembly

1. Park tractor on a hard, level surface such as a concrete floor. Engage parking brake, disengage PTO, and stop engine.
2. On left side of tractor, move idler arm (a, Figure 1) on mower to release belt tension. Remove belt from tractor PTO pulley (b).

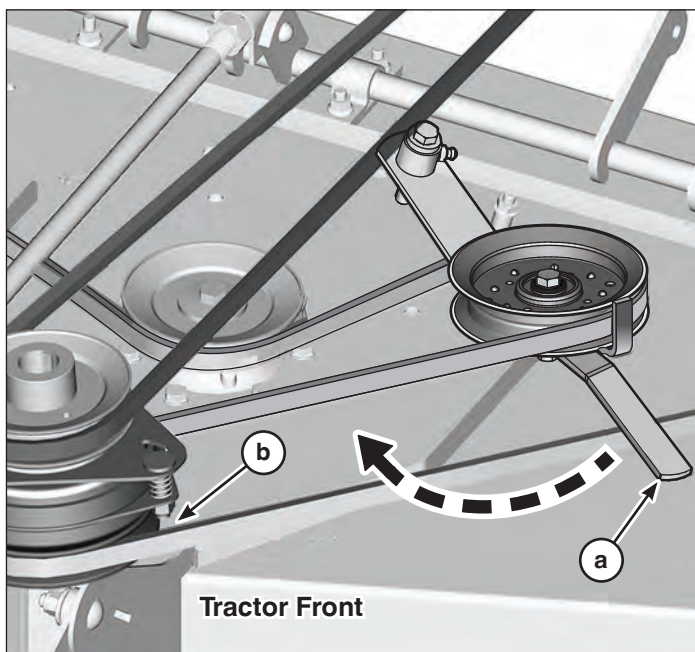


Figure 1

3. On discharge side of mower, remove and retain tapites (c, Figure 2) securing pulley cover (d). Remove existing pulley cover and discard.

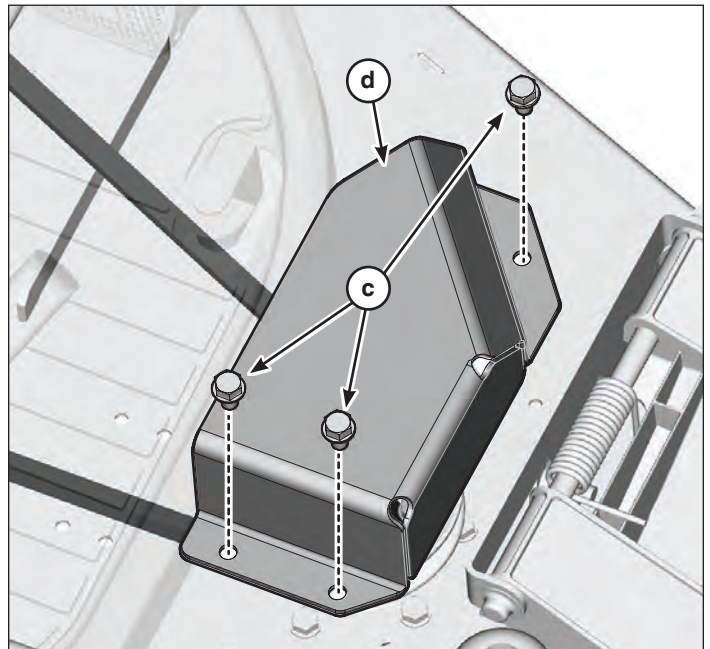


Figure 2

4. Pull up on belt (e, Figure 3) and remove from pulley (f),

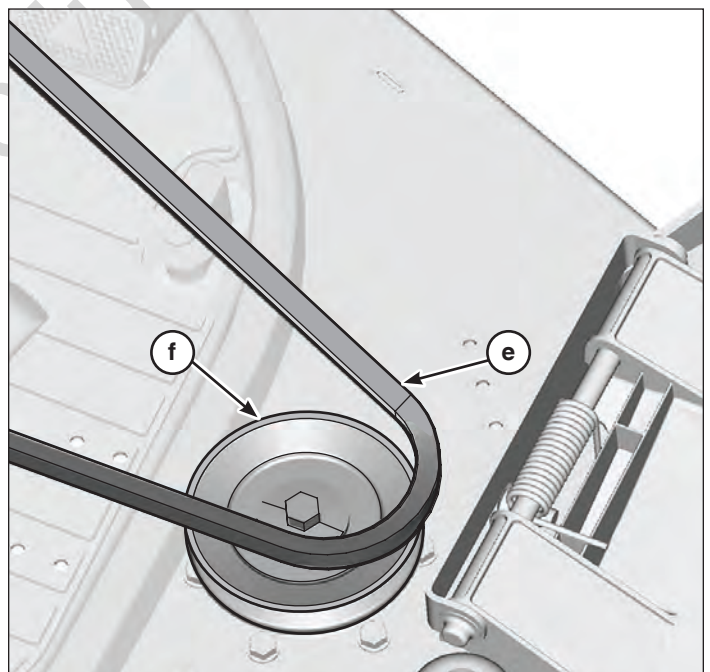


Figure 3

NOTE: Wedge a wooden block between the mower blade and the mower deck housing to keep the mower blade from turning.

- Remove bolt (g, Figure 4), Belleville washer (h), existing pulley (f) and spacer (i). Retain Belleville washer and existing pulley.

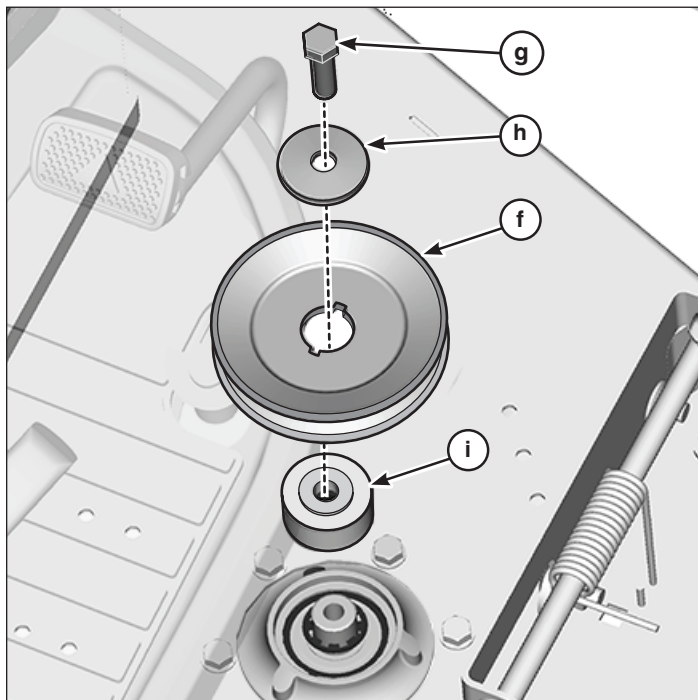


Figure 4

- Rotate deflector (j, Figure 5) to upright position.

NOTE: Ground following deck shown.

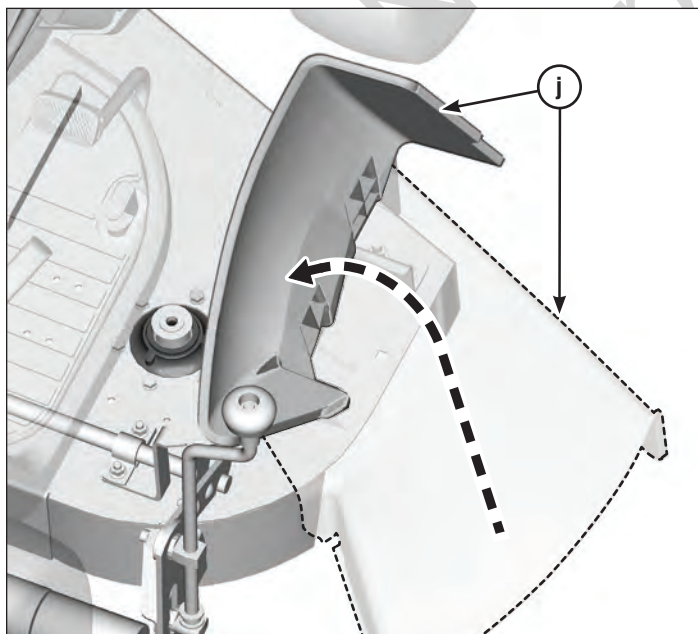


Figure 5

- Remove and retain nuts (k, Figure 6), bolts (l) remove deflector bracket (m).

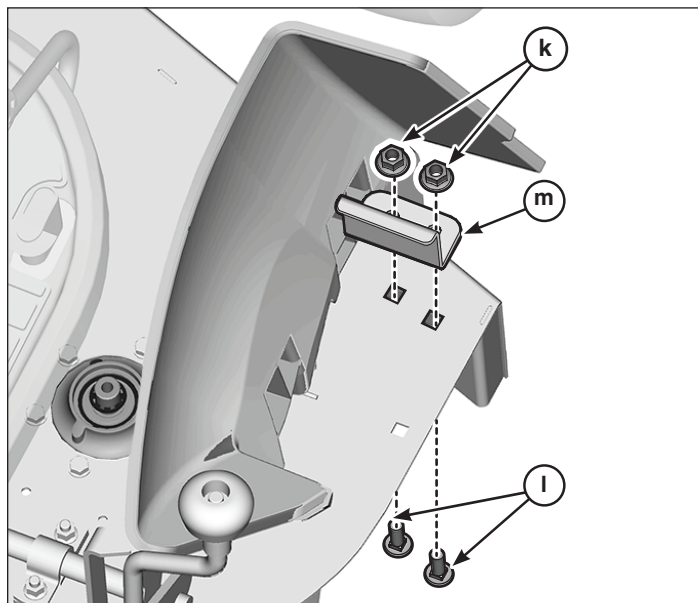


Figure 6

- Install pivot assembly (A, Figure 7). Secure with existing hardware (k/l) removed in Figure 6 and new hardware (B/C).
- Rotate deflector down.

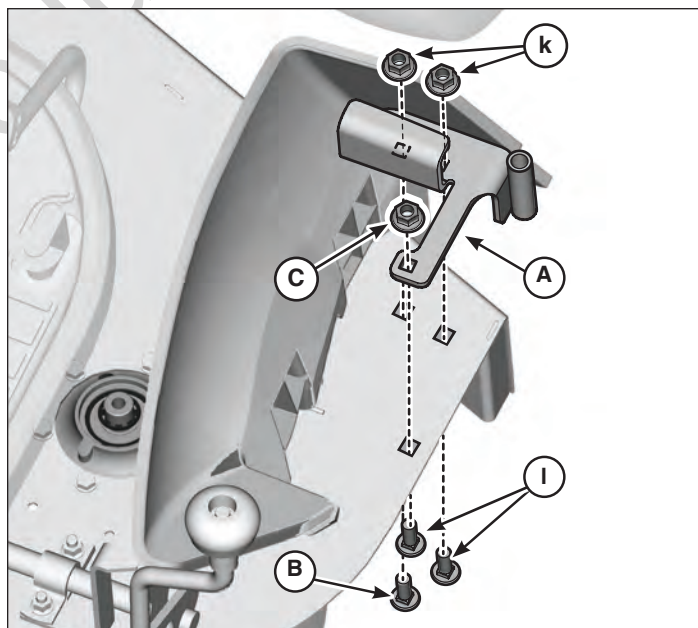


Figure 7

Pulley Installation

1. Place spacer (D, Figure 8), existing pulley (f), hub (E), pulley (F) and existing belleville washer (g) onto pulley hub.

IMPORTANT: Align keys on pulley hub (E) to the key slots in pulleys (F) and (f).

NOTE: When installing belleville washer, concave side is facing down. See inset.

2. Secure with capscrew (G). Torque to 60 ft. lbs.

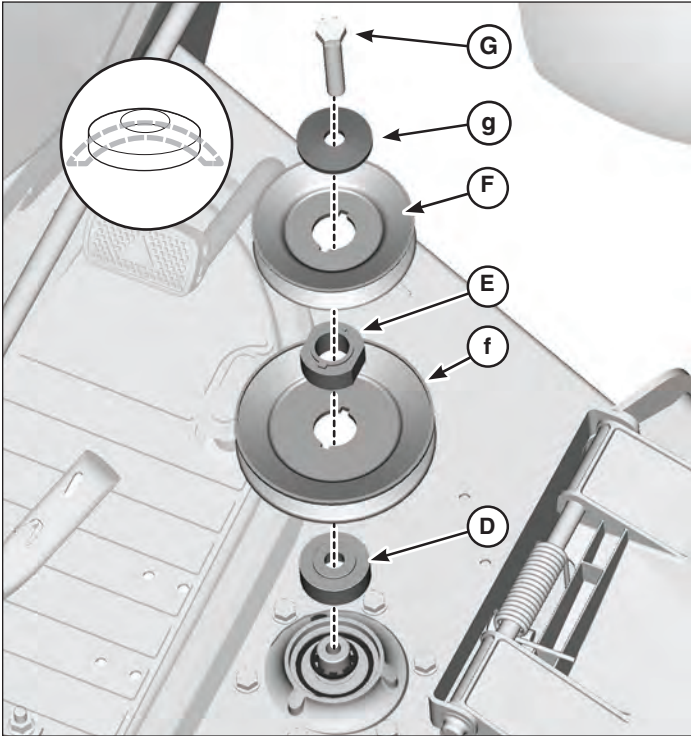


Figure 8

3. **IMPORTANT:** Remove wooden block from under deck.
4. Re-install mower drive belt (e, Figure 9) onto the lower pulley of the pulley assembly (f).

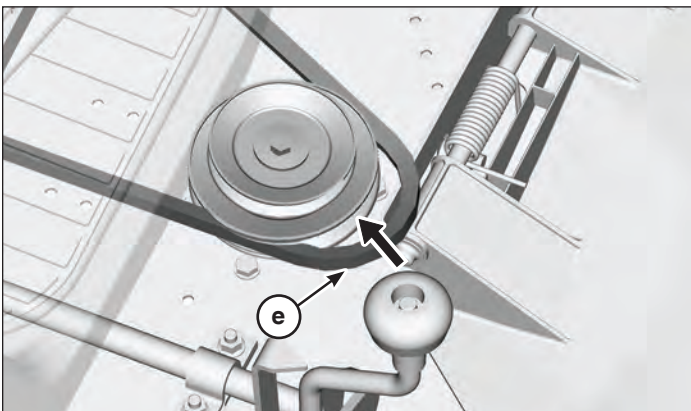


Figure 9

5. Align mounting holes in pulley cover assembly (H, Figure 10) with holes in mower deck by rotating bracket position. Secure with existing taptites (c) from Figure 2 and new taptite (I).

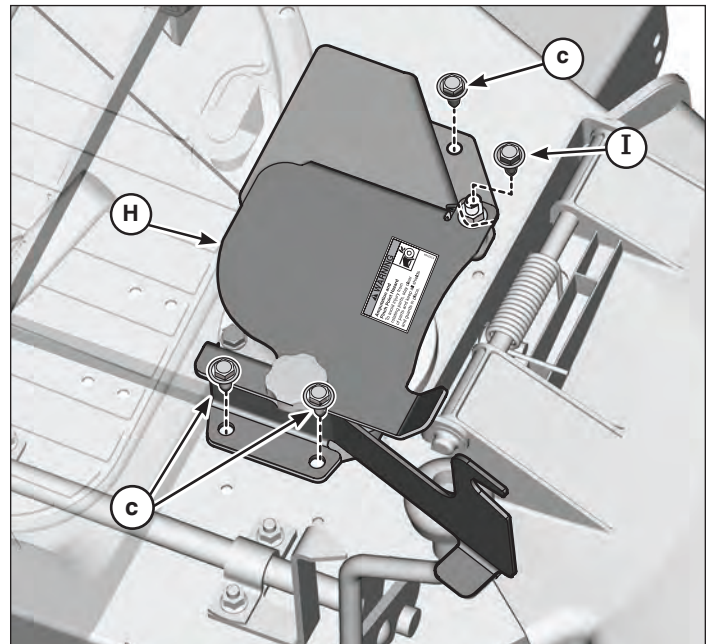


Figure 10

5. Remove and retain knob (n, Figure 11) and lockwasher (o). Rotate cover (p).

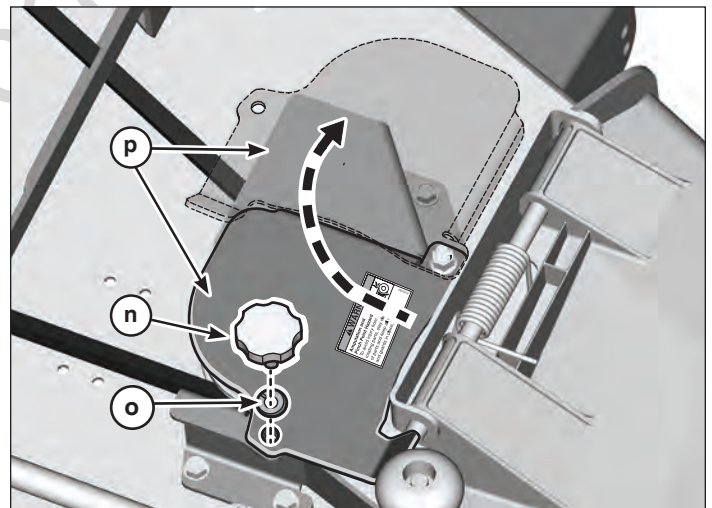


Figure 11

Turbo Installation

NOTE: Deflector needs to be rotated to the upright position. See Figure 5.

NOTE: Assistance maybe needed to perform Step 1.

1. Insert mounting pin on turbo assembly (J, Figure 12) into pivot assembly (A).

NOTE: Ensure turbo is seated all the way down.

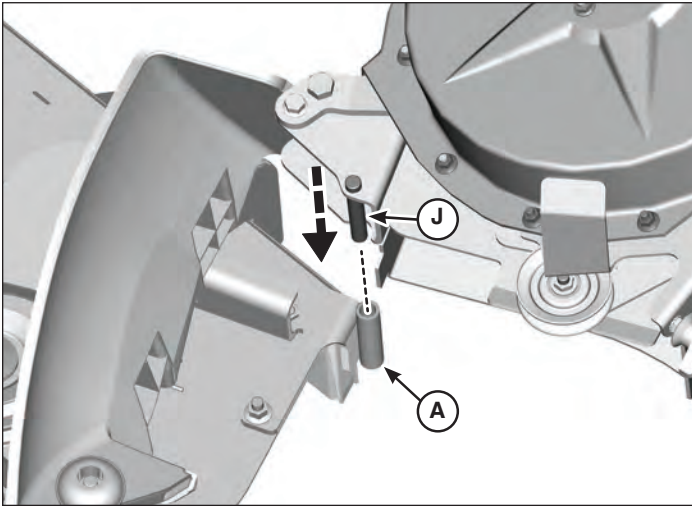


Figure 12

2. Fully rotate turbo assembly (J, Figure 13) toward mower ensuring the belt (q) is under the deflector and deflector bracket.

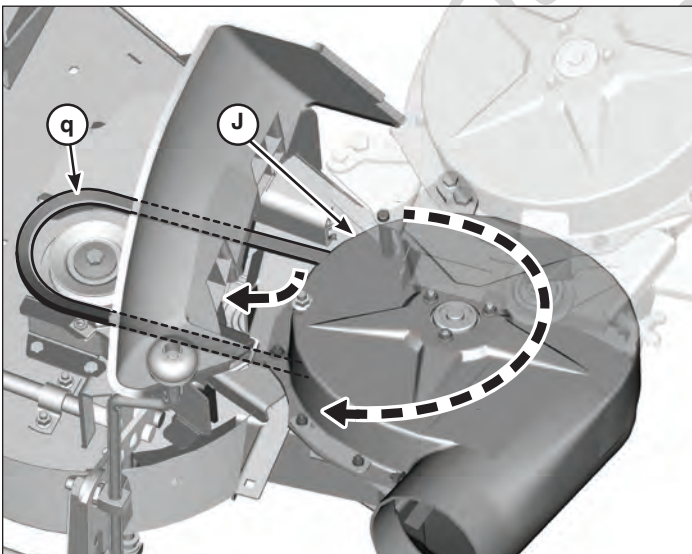


Figure 13

3. Align carriage bolt (r, Figure 14) and wing nut (s) to cover latch bracket (t).

NOTE: Ensure cup washer (u) is on the outside of the cover latch bracket (t) as shown in Figure 14.

4. Tighten wing nut.

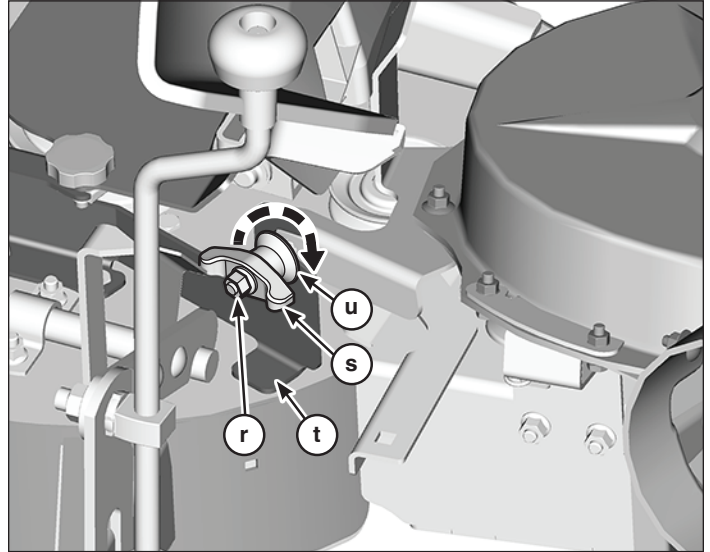


Figure 14

5. Pull idler arm (v, Figure 15) to loosen tension, then install turbo belt (q) onto top pulley (F).

NOTE: Sufficient effort will be required to release belt tension.

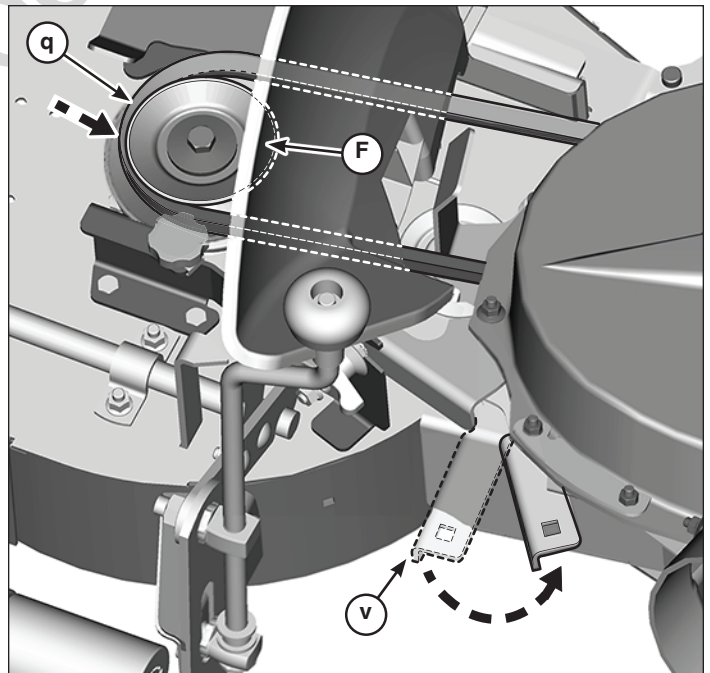


Figure 15

6. Rotate deflector down to deflector stop on turbo.
7. Rotate pulley cover (p, Figure 16) back and secure with lockwasher (o) and knob (n).

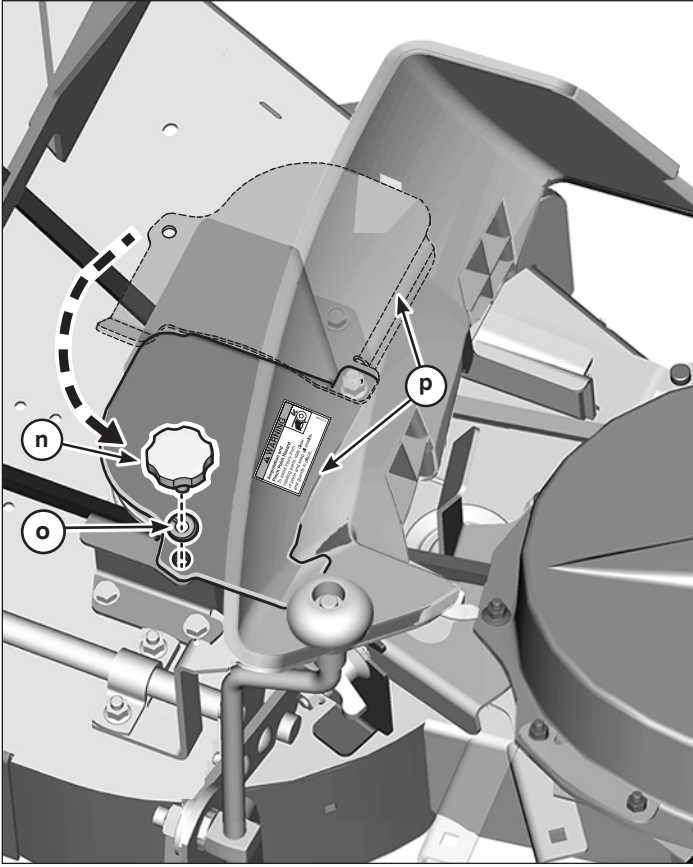


Figure 16

8. On left side of tractor, move idler arm (a, Figure 17) on mower to release belt tension. Reinstall belt onto PTO pulley (b).

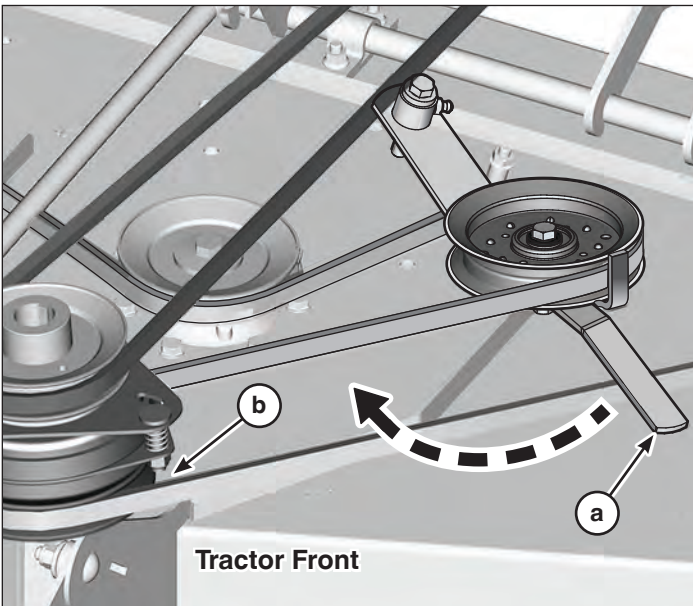


Figure 17

! WARNING

Before you begin operating the unit with the Turbo attached, be certain you have read all of the safety information in this Operator's Manual, as well as the Operator's Manual for the tractor and any grass catchers or other collection devices used in conjunction with this Turbo blower.

Install Cover Seal & Tube

1. Use flange seal (K, Figure 18) as a template.
2. Place flange seal down to right against ridge on grass cover as shown.
3. Drill six 13/64" holes (w) on grass catcher cover.

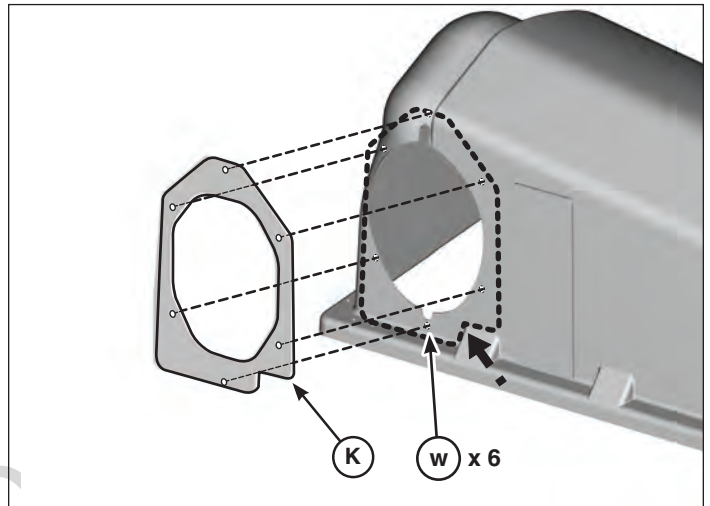


Figure 18

4. Align flange seal (K, Figure 19) and cover seal (M) with drilled holes on inside of grass catcher cover. Secure with screws (L) and nuts (N).

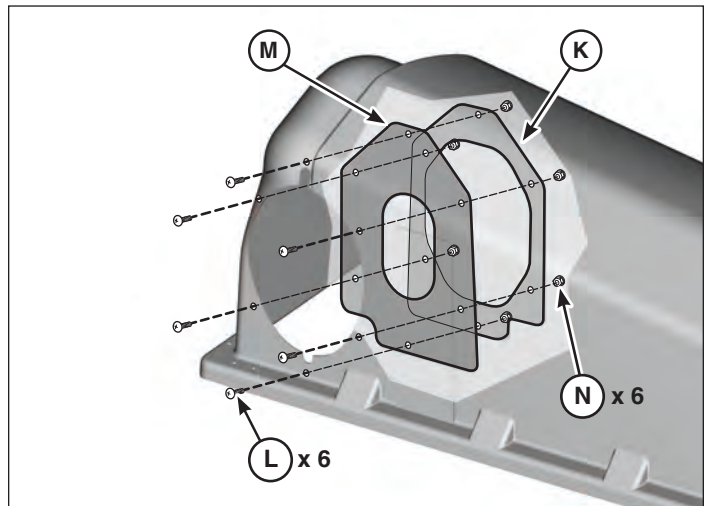


Figure 19

- Slide upper tube (O, Figure 20) over lower tube (P) and align holes as shown.
- On the inside of tube, insert screw (L) through washer (Q), lower tube, upper tube and washer (Q). Secure with nut (N).

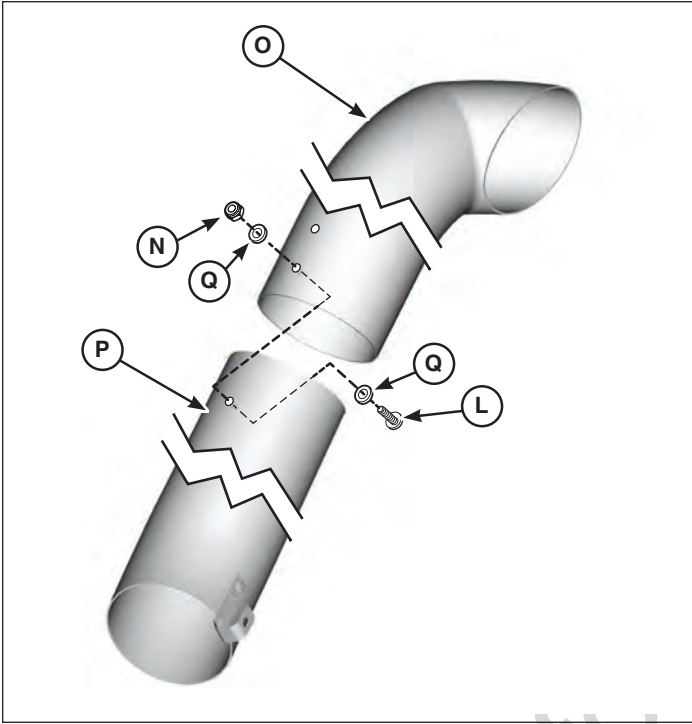


Figure 20

Attach Triple Collector Plate & Edging

- Hold deflector plate (R, Figure 21) in cover and mark new hole locations using deflector plate as a template.
- Drill two 13/64" holes in marked locations.
- Insert screws (L) through holes on outside of cover and deflector plate. Secure with nuts (N).

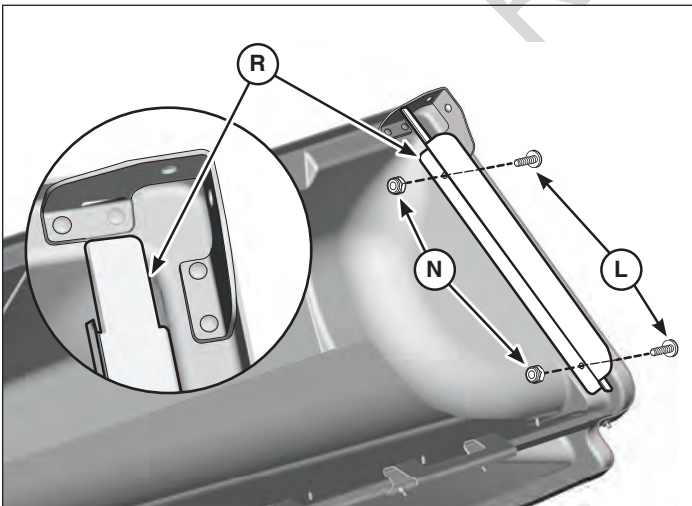


Figure 21

- Slide cover edging (S, Figure 22) onto cover, starting from the edge of hinge (y).

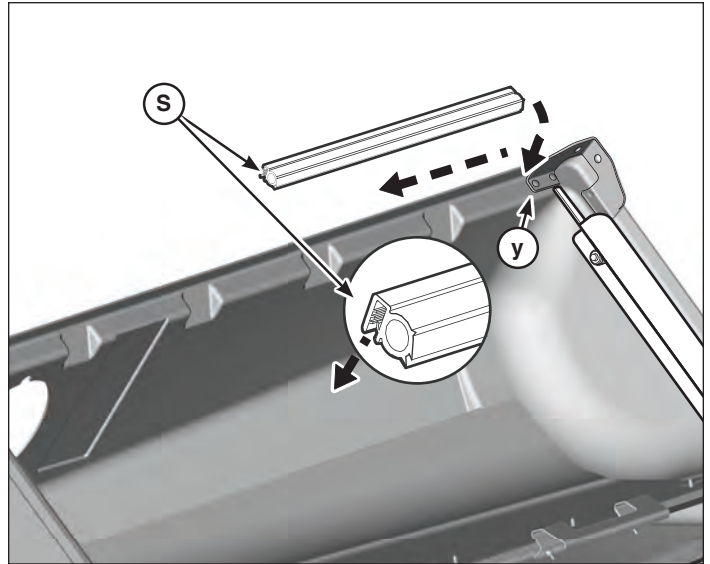


Figure 22

Install Cover & Collector Bag

Refer to Bagger Operator's Manual.

Tube Installation

- Slide the upper tube (O, Figure 23) through cover seal (M).

NOTE: This may require some rotating of the discharge end of tube assembly.

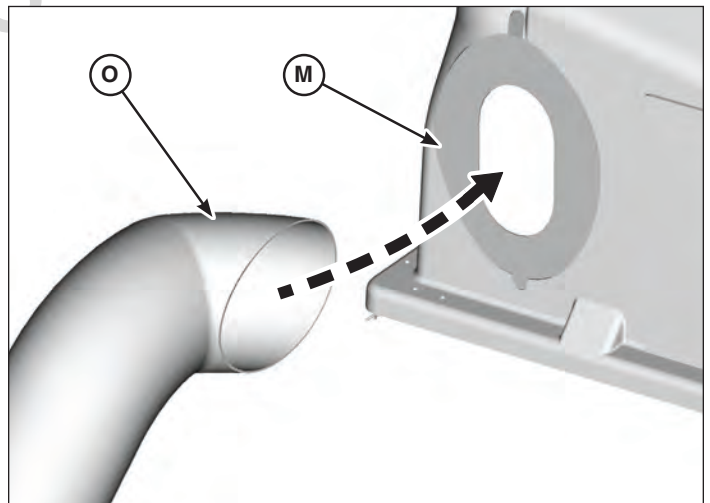


Figure 23

- Slide intake end of lower tube (P, Figure 24) onto outlet of turbo (L).
- Lift spring clip (aa) over nut and capscrew (ab) and press to lock into place.

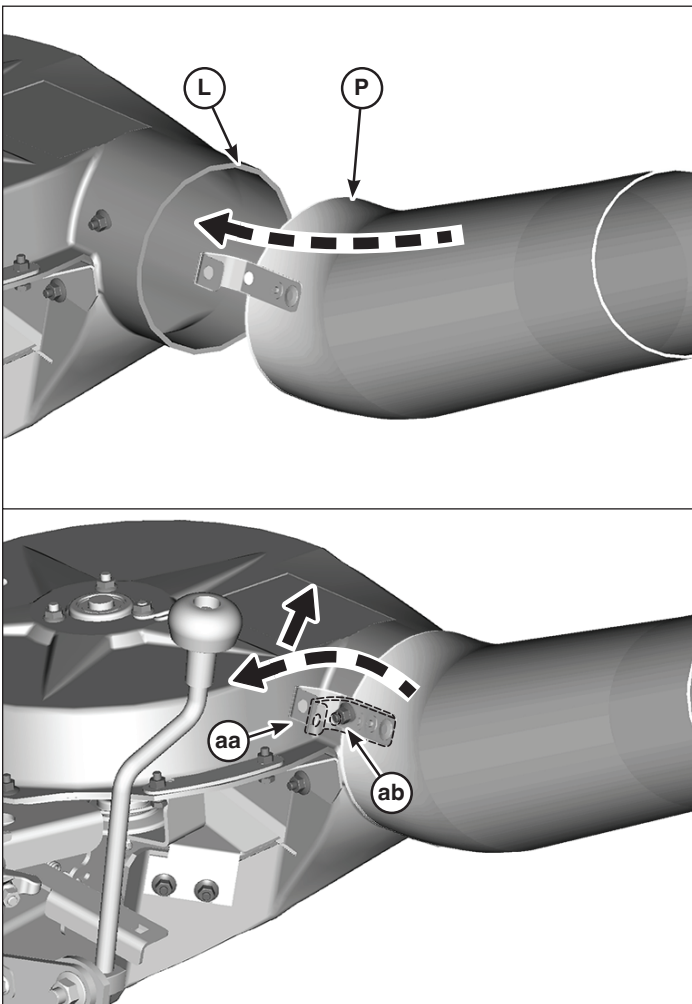


Figure 24

Models with Frame-Hung Mowers

Remove Lift Rod

NOTE: This procedure is performed on the left side of the tractor when the turbo and tubes are not installed on the mower deck.

- Place several blocks of wood under the mower deck so that there is slack in the mower lift when the mower is in the lowest position.
- Remove the hair pin (ac, Figure 25) from lift rod (ad).

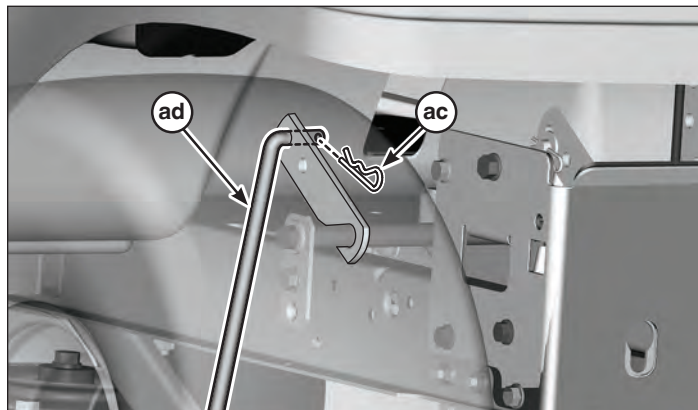


Figure 25

- Pull out lift rod (ad, Figure 26) from lift arm (ae) and rotate to remove from lift bar (af).

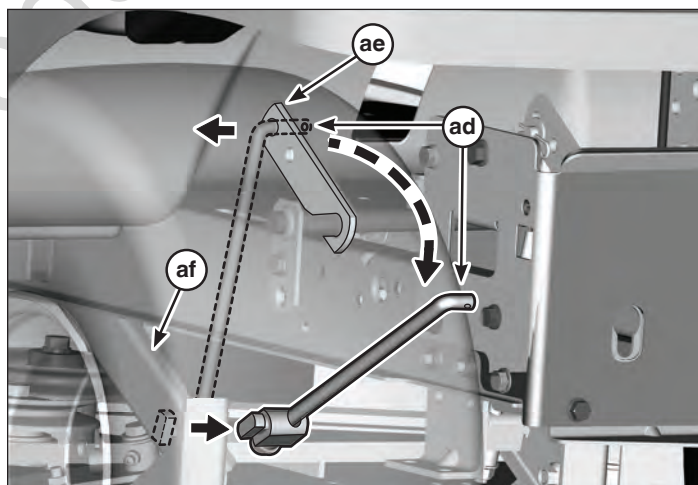


Figure 26

4. Remove the locknut (**ag**, Figure 27) and spacer (**ah**).
5. Mark the location of the special nut (**ai**) and remove.

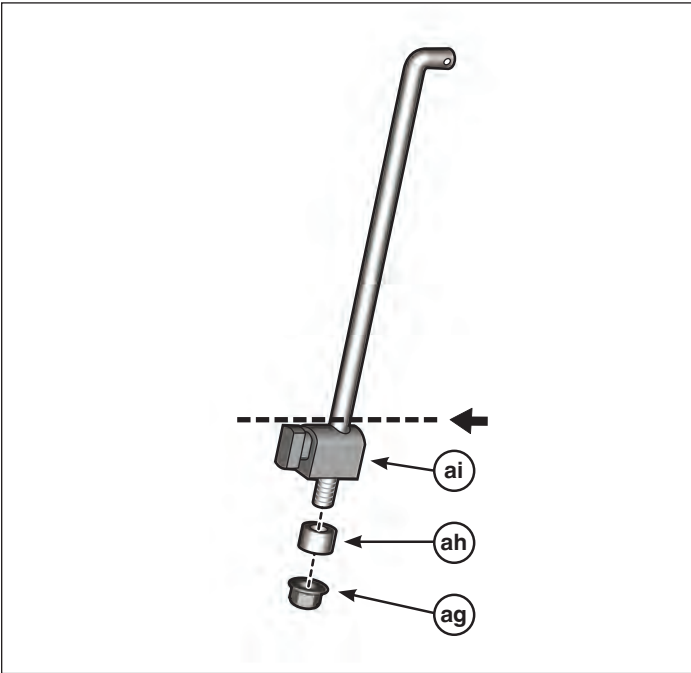


Figure 27

6. Slide set collar (**T**, Figure 28) onto lift rod (**ad**).
7. Place the top of set collar 4.50" from the bottom of the rod tip (**aj**) as shown.
8. Secure set collar in place with set screw (**U**) pointing 90° from rod tip.

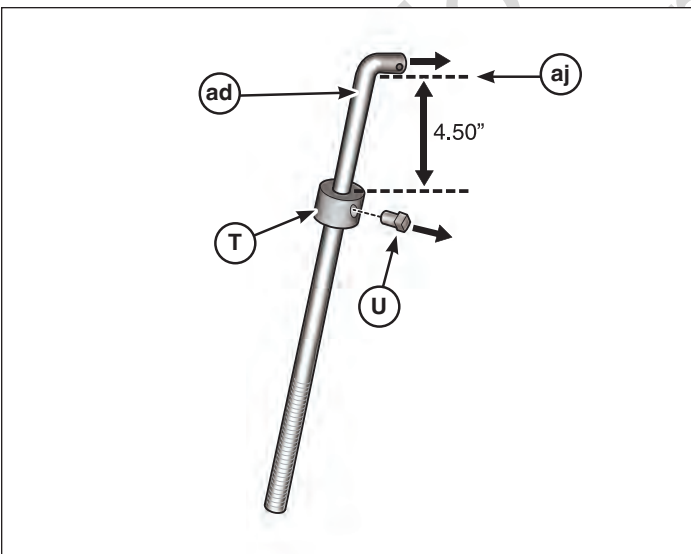


Figure 28

9. Install spring (**w**, Figure 29) and special nut (**ai**) in location marked in Figure 27.
10. Install spacer (**ah**) and locknut (**ag**).

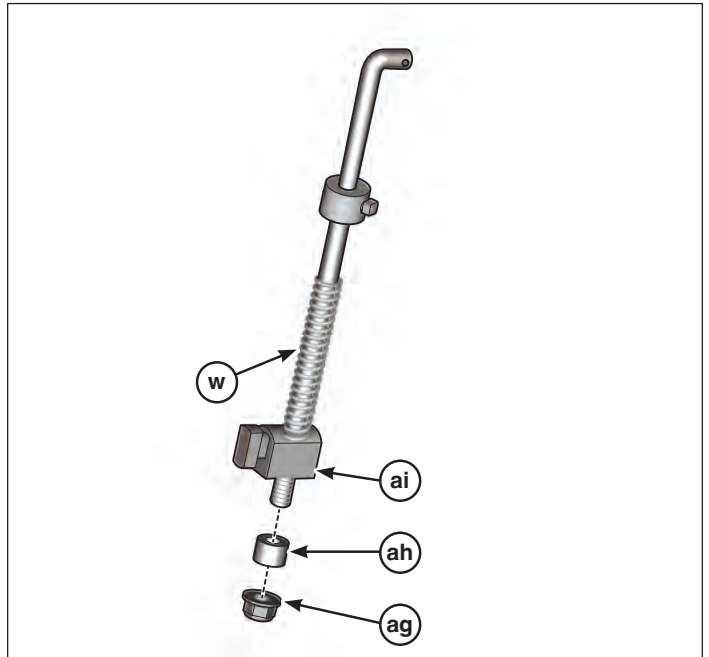


Figure 29

11. Connect special nut (**ai**) to lift bar (**af**).
12. Reinstall lift rod (**ad**) onto lift arm (**ae**, Figure 30) and secure with hair pin (**V**).

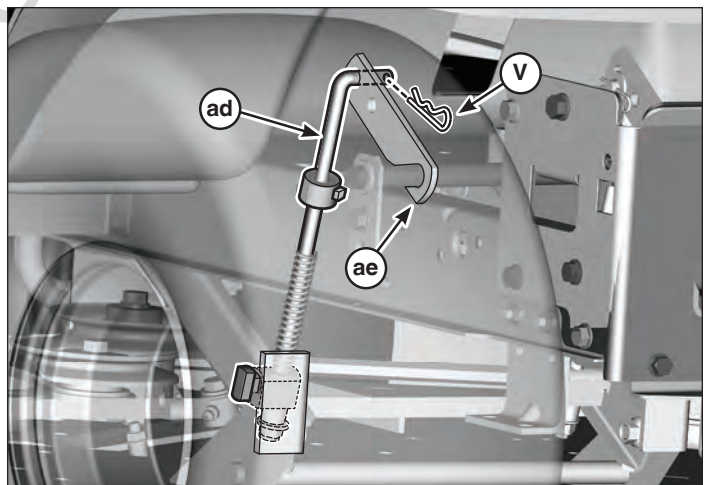


Figure 30

Operation

Before Operation

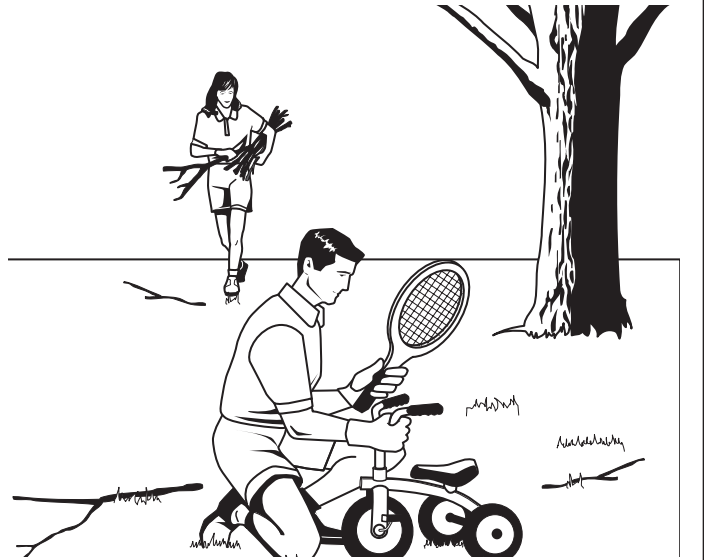
Clear the lawn of all sticks, stones, wire and other debris which may be caught or thrown by the mower blades.

For best results, mow when the grass is dry. Wet grass tends to clump and plug up the mower and grass catcher

For efficient grass collection, air circulation under the mower deck, through the chute and into the grass catcher or cart is very important.

For this reason, **BEFORE YOU BEGIN MOWING** you should make certain the underside of the mower and the underside of the catcher lid are free from grass and debris.

Make sure that there is a snug fit between mower deck, blower housing, tubes, and grass catcher cover.



Mowing with the Turbo

Always operate with engine running at full speed when mowing.

Grass should be cut often, and not too short. If grass is too long or lush it may be necessary to keep ground speed to a minimum or to cut only half the width of the mower to prevent clogging. If grass is long, operate with mower in high cutting position for first pass, cutting again in a lower position on a second pass.

Look through the grass catcher tube to check for grass flow. **Do not open the grass catcher cover with mower engaged.**

If a large amount of cut grass is spilling out from under the deck, the tube may be plugged or the catcher may be full. Discontinue mowing, stop the tractor, disengage the PTO and then empty the catcher or clear the tube.

WARNING

ALWAYS shut off the tractor. Disengage the PTO, and allow all moving parts to stop **BEFORE** disconnecting or clearing tube, or emptying grass bags.

Before leaving the operator's position for any reason, engage the parking brake, disengage the PTO, stop the engine and remove the key.

To reduce fire hazard, keep the engine, tractor and mower free of grass, leaves and excess grease. Do not stop or park tractor over dry leaves, grass or combustible materials.

Mowing without the Turbo

If you need to mow without the turbo vacuum system in place (for instance, if the grass is too wet to bag, but must be mowed), you must remove the turbo from the mower deck, and properly position the deflector **BEFORE** you begin mowing.

WARNING

To operate without the collection system, the turbo assembly **MUST** be removed and the deflector **MUST** be in the down position.

The deflector is spring loaded. When removing the turbo, hold the deflector up; then lower the deflector into the normal operating position.

Recommended Accessories

If operating on slopes when a rear attachment is installed, use front counterweights. If you will be operating on slopes over 15% (8.5°), two rear wheel weights are recommended in addition to the front counterweights. Never operate on slopes greater than 17.6% (10°).

After Operation

The turbo housing and grass catcher tube should be removed for cleaning. Remove the tube by unlatching the lower tube spring clip from turbo housing. When reattaching, make sure there is a snug fit between the mower deck, turbo housing, and grass catcher.

⚠ DANGER

To operate without the collection system, the turbo assembly **MUST** be removed and the deflector **MUST** be in the down position.

The deflector is spring loaded. When attaching or removing the turbo, hold the deflector up; then lower the deflector into the normal operating position.

Removing the Turbo & Tubes

NOTE: For operation without turbo, the deflector must be properly installed in the down position.

1. Place the mower deck in the lowest cut position.
2. On left side of tractor, move idler arm (a, Figure 30) on mower to release belt tension. Remove belt from PTO pulley (b).

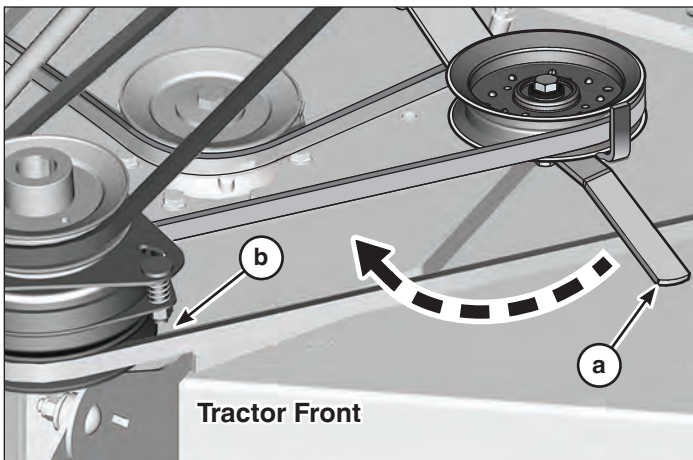


Figure 30

3. Lift clip (aa, Figure 31) over nut and capscrew (ab). Remove lower tube (P) from turbo (J).

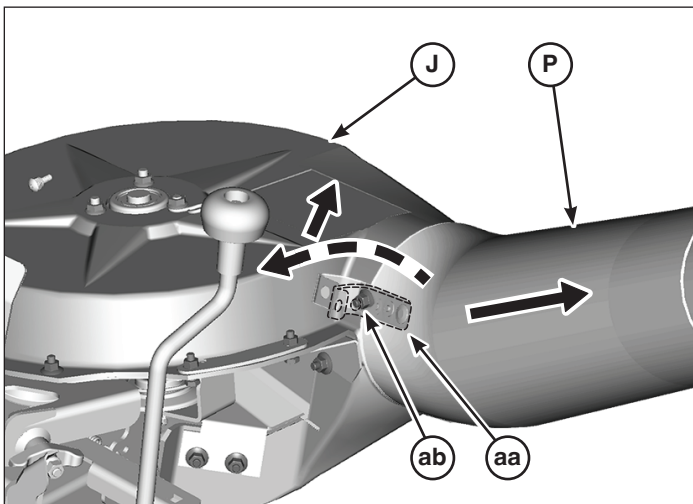


Figure 31

4. Slide the discharge end of upper tube (o, Figure 32) out of cover seal (M). Remove tube assembly.

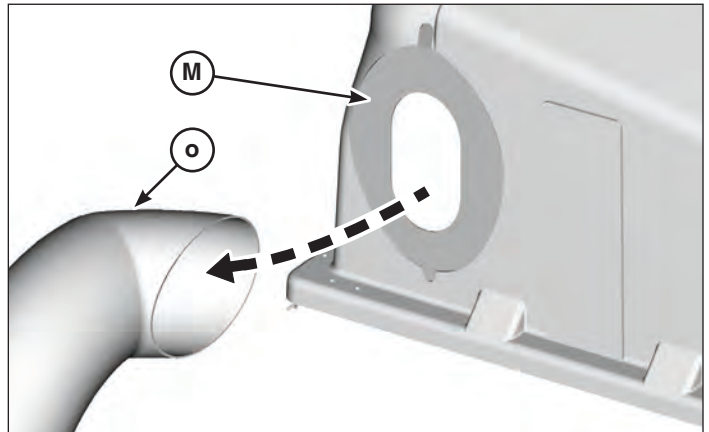


Figure 32

5. Remove and retain knob (n, Figure 33) and lockwasher (o). Rotate cover (p).

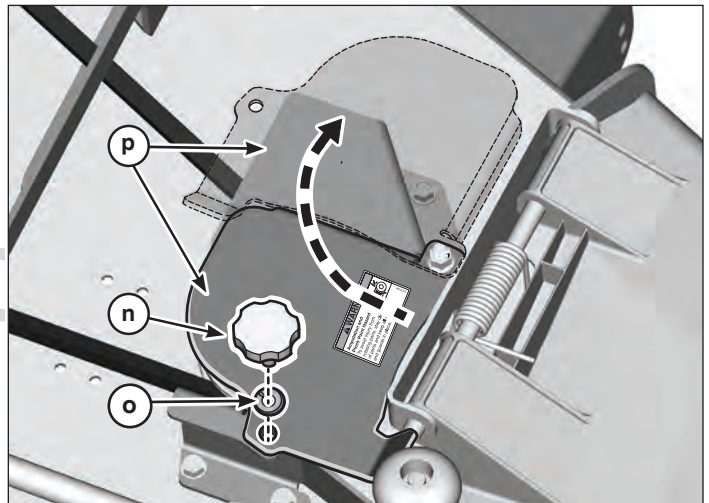


Figure 33

NOTE: Sufficient effort will be required to release belt tension.

7. Remove turbo belt (q, Figure 34) from top pulley (F) of pulley assembly by pulling back on the idler arm (v) to loosen tension.

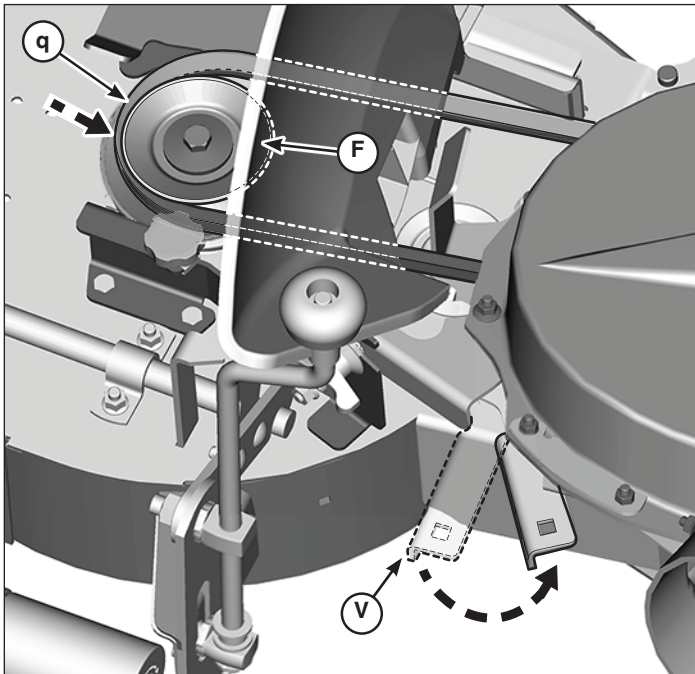


Figure 34

8. Loosen wing nut (s, Figure 35) on cover latch bracket (t).

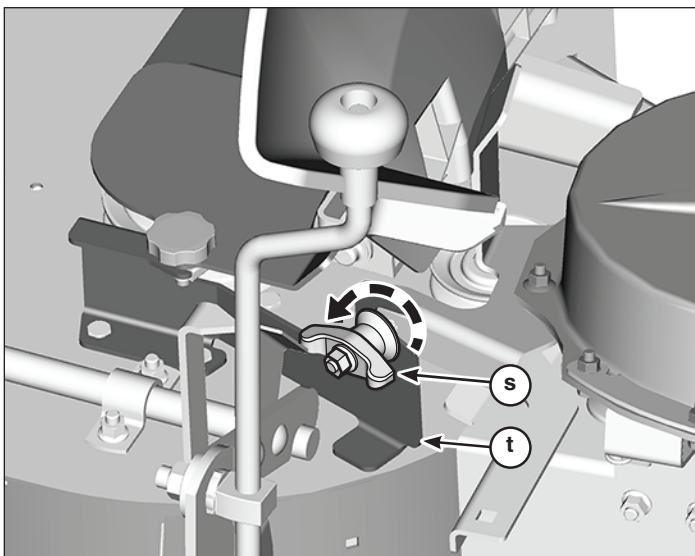


Figure 35

9. Fully rotate turbo assembly (J, Figure 36) away from mower and lift to remove.

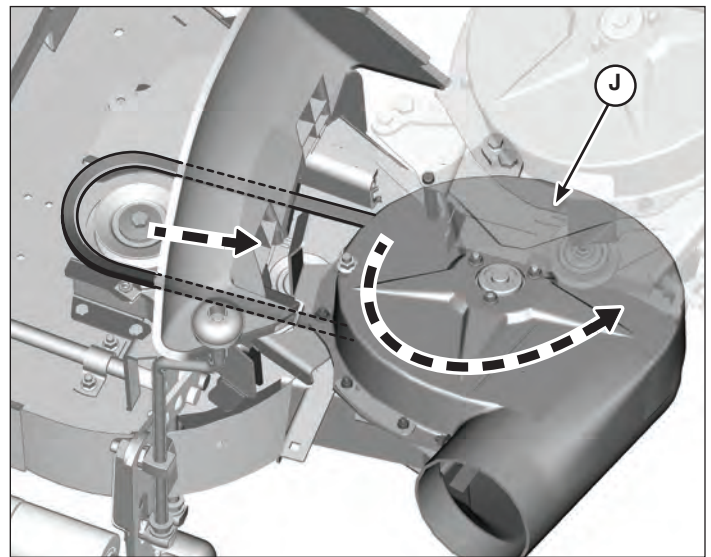


Figure 36

! WARNING

The deflector must be returned to the down position. DO NOT operate the unit without a deflector

10. Rotate deflector (j, Figure 37) to down position.

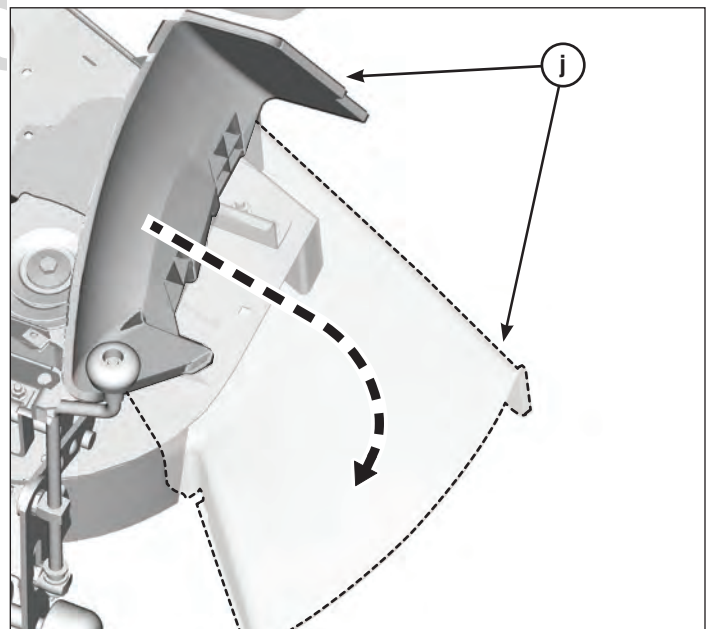


Figure 37

Storage

11. Rotate cover (p, Figure 38) back and secure with lockwasher (o) and knob (n).

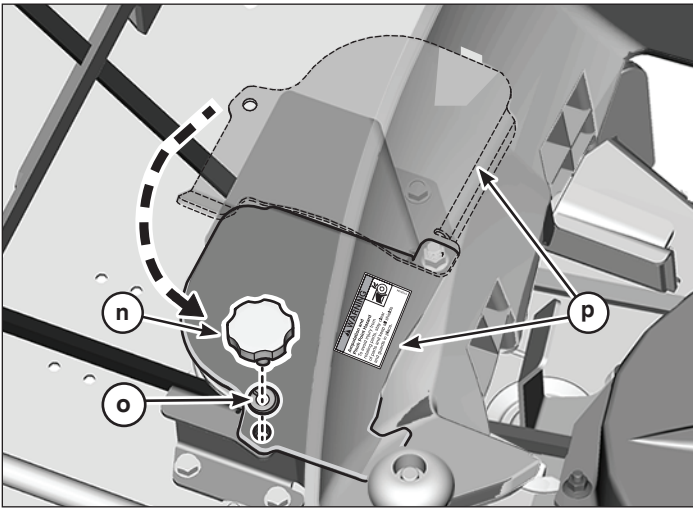


Figure 38

9. On left side of tractor, move idler arm (k, Figure 39) on mower to release belt tension. Reinstall belt to PTO pulley (l).

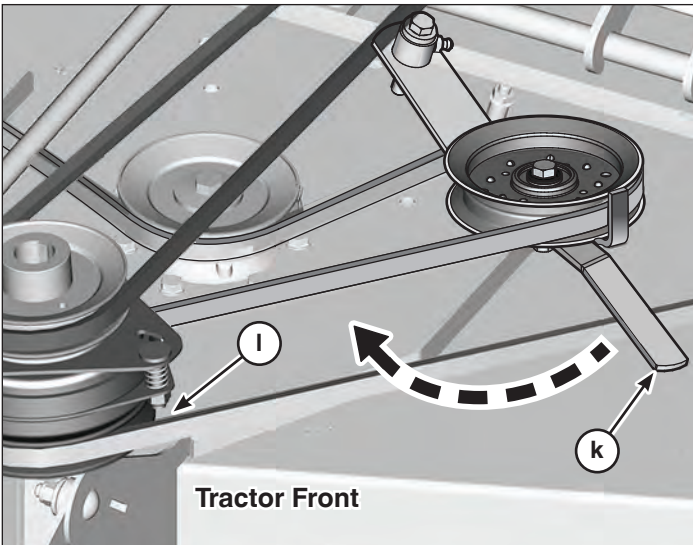


Figure 39

Remove any debris from the turbo housing. To clean the housing, use a mild detergent only (other products may damage tube).

If paint has been scratched on metal parts, touch up with paint or apply a thin film of oil.

To prevent corrosion, store in a dry area.



WARNING

The tractor is equipped with several safety systems designed to keep the operator safe. Check these systems using the safety systems tests listed in the Operator's Manual.

LIMITED WARRANTY

Briggs & Stratton warrants that, during the warranty period specified below, it will repair or replace, free of charge, any part that is defective in material or workmanship or both. Transportation charges on product submitted for repair or replacement under this warranty must be borne by purchaser. This warranty is effective for and is subject to the time periods and conditions stated below. For warranty service, find the nearest Authorized Service Dealer in our dealer locator map at www.briggsandstratton.com. The purchaser must contact the Authorized Service Dealer, and then make the product available to the Authorized Service Dealer for inspection and testing.

There is no other express warranty. Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to the warranty period listed below, or to the extent permitted by law. Liability for incidental or consequential damages are excluded to the extent exclusion is permitted by law. Some states or countries do not allow limitations on how long an implied warranty lasts, and some states or countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state or country to country.**

WARRANTY PERIOD

Item	Consumer Use	Commercial Use
Accessory/Attachment	12 months	None

** In Australia - Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. For warranty service, find the nearest Authorized Service Dealer in our dealer locator map at BRIGGSandSTRATTON.COM, or by calling 1300 274 447, or by emailing or writing to salesenquires@briggsandstratton.com.au, Briggs & Stratton Australia Pty Ltd, 1 Moorebank Avenue, NSW, Australia, 2170.

The warranty period begins on the date of purchase by the first retail or commercial consumer. "Consumer use" means personal residential household use by a retail consumer. "Commercial use" means all other uses, including use for commercial, income producing or rental purposes. Once a product has experienced commercial use, it shall thereafter be considered as a commercial use product for purposes of this warranty.

To ensure prompt and complete warranty coverage, register your product at the website shown above or at www.onlineproductregistration.com, or mail the completed registration card (if provided), or call 1-800-743-4115 (in USA).

Save your proof of purchase receipt. If you do not provide proof of the initial purchase date at the time warranty service is requested, the manufacturing date of the product will be used to determine the warranty period. Product registration is not required to obtain warranty service on Briggs & Stratton products.

ABOUT YOUR WARRANTY

Warranty service is available only through Briggs & Stratton Authorized Service Dealers. Most warranty repairs are handled routinely, but sometimes requests for warranty service may not be appropriate. This warranty covers only defects in materials or workmanship. It does not cover damage caused by improper use or abuse, improper maintenance or repair, or normal wear and tear.

Improper Use and Abuse - The proper, intended use of this product is described in the Operator's Manual. Using the product in a way not described in the Operator's Manual or using the product after it has been damaged will not be covered under this warranty. Warranty coverage will also not be provided if the serial number on the product has been removed or the product has been altered or modified in any way, or if the product has evidence of abuse such as impact damage or water/chemical corrosion damage.

Improper Maintenance or Repair - This product must be maintained according to the procedures and schedules provided in the Operator's Manual, and serviced or repaired using genuine Briggs & Stratton parts or equivalent. Damage caused by lack of maintenance or use of non-original parts is not covered by warranty.

Normal Wear and Tear - Like most mechanical devices, your unit is subject to wear even when properly maintained. This warranty does not cover repairs when normal use has exhausted the life of a part or the equipment. Maintenance and wear items such as filters, belts, cutting blades, and brake pads (except engine brake pads) are not covered by warranty due to wear characteristics alone, unless the cause is due to defects in material or workmanship.

Other Exclusions - This warranty excludes damage due to accident, abuse, modifications, alterations, improper servicing, freezing or chemical deterioration. Attachments or accessories that were not originally packaged with the product are also excluded. This warranty does not include used, reconditioned, second-hand, or demonstration equipment or engines. This warranty also excludes failures due to acts of God and other force majeure events beyond the manufacturer's control.