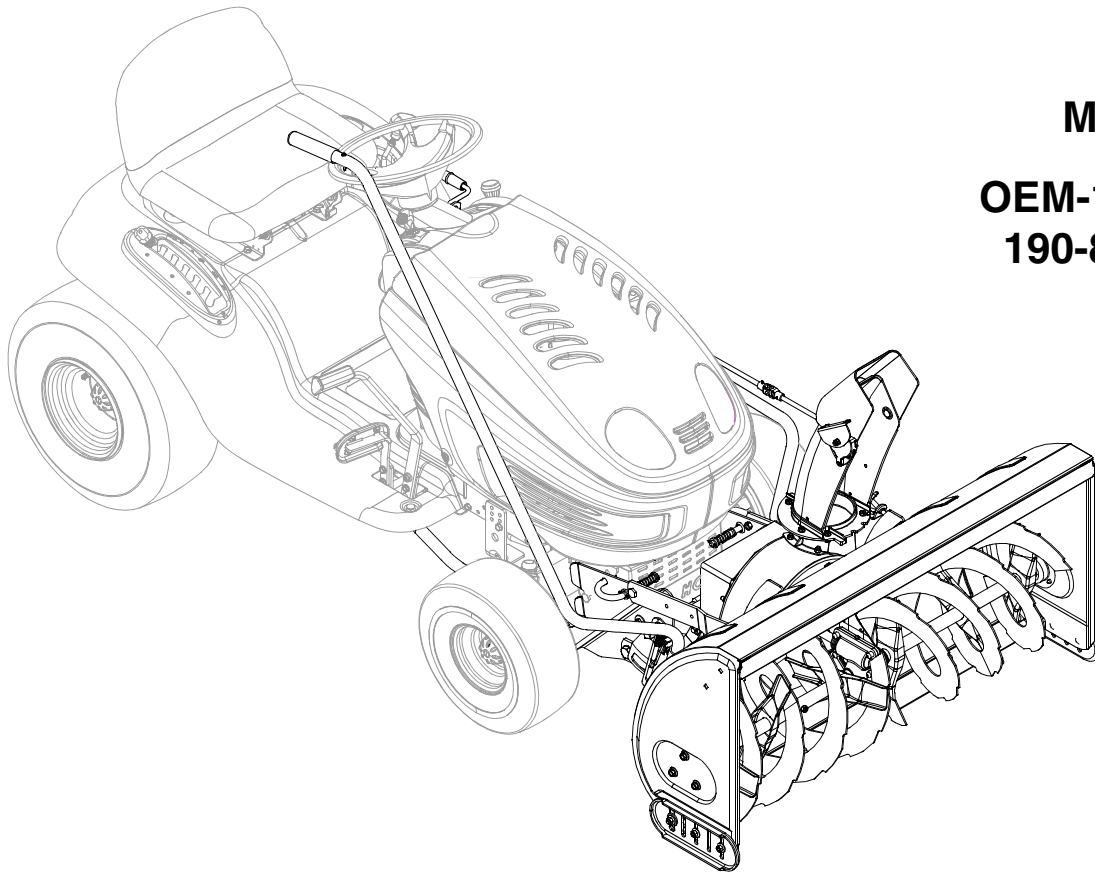


Operator's Manual

42-inch Two-stage Snow Thrower Attachment

For  **FASTATTACH™** Compatible Tractors



Model

**OEM-190-823 /
190-823-101**

NOTE: This snow thrower attachment will **NOT** fit on all 600-series lawn tractors and 800-series garden tractors. It is designed for and will mount to and operate safely and properly on *FastAttach™* compatible tractors **ONLY**. Check your tractor's right fender for the *FastAttach™* label before attempting to mount this attachment.

MTD LLC P.O. BOX 361131 CLEVELAND, OHIO 44136-9722

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FINDING MODEL NUMBER

This Operator's Manual is an important part of your new snow thrower attachment. It will help you assemble, prepare and maintain the unit for best performance. Please read and understand what it says.



Before you start assembling your new equipment, please locate the model plate on the equipment and copy the information from it in the space provided below. The information on the model plate is very important if you need help from our Customer Support Department or an authorized dealer.

- You can locate the model number by looking it by looking on the rear, right portion of the snow thrower impeller housing. A sample model plate is explained below. For future reference, please copy the model number and the serial number of the equipment in the space below.

_____	_____
(Model Number)	(Serial Number)

MTD LLC
P. O. BOX 361131
CLEVELAND, OH 44136
330-220-4683
800-800-7310

Copy the model number here: _____

Copy the serial number here: _____

CALLING CUSTOMER SUPPORT

If you have difficulty assembling this product or have any questions regarding the controls, operation or maintenance of this unit, please call the Customer Support Department.



Call **1- (330) 220-4MTD (4683)** or **1- (800)-800-7310** to reach a Customer Support representative. Please have your unit's model number and serial number ready when you call. See previous section to locate this information. You will be asked to enter the serial number in order to process your call.

For more details about your unit, visit our website at www.mtdproducts.com

SECTION 1: IMPORTANT SAFE OPERATION PRACTICES



WARNING: This symbol points out important safety instructions which, if not followed, could endanger the personal safety and/or property of yourself and others. Read and follow all instructions in this manual before attempting to operate this machine. Failure to comply with these instructions may result in personal injury. When you see this symbol—**heed its warning.**



WARNING: The Battery and Engine Exhaust contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. The battery and posts contain lead; wash hands after handling.



DANGER: This machine was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. This machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

TRAINING

1. Read, understand, and follow all instructions on the machine and in the manual(s) before attempting to assemble and operate. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Be familiar with all controls and their proper operation. Know how to stop the machine and disengage them quickly.
3. Never allow children under 14 years old to operate this machine. Children 14 years old and over should read and understand the operation instructions and safety rules in this manual and should be trained and supervised by a parent.
4. Never allow adults to operate this machine without proper instruction.
5. Thrown objects can cause serious personal injury. Plan your snow throwing pattern to avoid discharge of material toward roads, bystanders and the like.
6. Keep bystanders, helpers, pets and children at least 75 feet from the machine while it is in operation. Stop machine if anyone enters the area.
7. Exercise caution while operating tractor with this attachment, especially when traveling in reverse.
6. Never attempt to make any adjustments while engine is running, except where specifically recommended in the operator's manual(s).
7. Let tractor engine and attachment adjust to outdoor temperature before starting to clear snow.
8. To avoid personal injury or property damage use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive. Serious personal injury can occur when gasoline is spilled on yourself or your clothes which can ignite. Wash your skin and change clothes immediately.
 - a. Use only an approved gasoline container.
 - b. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
 - c. Never fuel machine indoors.
 - d. Never remove gas cap or add fuel while the engine is hot or running.
 - e. Allow engine to cool at least two minutes before refueling.
 - f. Never over fill fuel tank. Fill tank to no more than ½ inch below bottom of filler neck to provide space for fuel expansion.
 - g. Replace gasoline cap and tighten securely.
 - h. If gasoline is spilled, wipe it off the engine and equipment. Move machine to another area. Wait 5 minutes before starting the engine.
 - i. Never store the machine or fuel container inside where there is an open flame, spark or pilot light (e.g. furnace, water heater, space heater, clothes dryer etc.).
 - j. Allow machine to cool at least 5 minutes before storing.

PREPARATION

1. Thoroughly inspect the area where the equipment is to be used. Remove all door mats, newspapers, sleds, boards, wires and other foreign objects which could be thrown by the auger/impeller.
2. Always wear safety glasses or eye shields during operation and while performing an adjustment or repair to protect your eyes. Thrown objects which ricochet can cause serious injury to the eyes.
3. Do not operate without wearing adequate winter outer garments. Do not wear jewelry, long scarves or other loose clothing which could become entangled in moving parts. Wear footwear which will improve footing on slippery surfaces.
4. Adjust collector housing height to clear gravel or crushed rock surfaces.
5. Disengage all clutches and shift into neutral before starting the engine.

OPERATION

1. Do not put hands or feet near rotating parts, in the auger/impeller housing or discharge chute. Contact with the rotating parts can amputate hands and feet.
2. Never operate with a missing or damaged discharge chute. Keep all safety devices in place and working.
3. Never run an engine indoors or in a poorly ventilated area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.
4. Do not operate machine while under the influence of alcohol or drugs.
5. Muffler and engine become hot and can cause a burn. Do not touch.

6. Exercise extreme caution when operating on or crossing gravel surfaces. Stay alert for hidden hazards or traffic. Do not carry passengers.
7. Exercise caution when changing direction and while operating on slopes.
8. Plan your snow throwing pattern to avoid discharge towards windows, walls, cars etc. To avoid property damage or personal injury caused by a ricochet.
9. Never direct discharge at children, bystanders and pets or allow anyone in front of the machine.
10. Do not overload machine capacity by attempting to clear snow at too fast of a rate.
11. Never operate this machine without good visibility or light.
12. Disengage power to the auger/impeller when transporting or not in use.
13. Never operate machine at high transport speeds on slippery surfaces. Look down and behind and use care when in reverse.
14. If the machine should start to vibrate abnormally, stop the engine, disengage the power take-off, lower the attachment and set the parking brake. Inspect thoroughly for damage. Repair any damage before starting and operating.
15. Disengage the power take-off, lower attachment, set the parking brake and stop engine before you leave the operating position. Wait until the auger/impeller comes to a complete stop before unclogging the discharge chute, making any adjustments, or inspections.
16. Never put your hand in the discharge or collector openings. Always use a clearing tool to unclog the discharge opening.
17. Use only attachments and accessories approved by the manufacturer (e.g. wheel weights, tire chains, cabs etc.).
18. If situations occur which are not covered in this manual, use care and good judgment. Contact an authorized service dealer or telephone 1-800-800-7310 for customer support.

MAINTENANCE AND STORAGE

1. Never tamper with safety devices. Check their proper operation regularly.
2. Disengage power take-off, lower the attachment, set the parking brake, stop engine and remove key to prevent unintended starting. Wait until the auger/impeller comes to a complete stop before cleaning, repairing, or inspecting.
3. Check bolts, and screws for proper tightness at frequent intervals to keep the machine in safe working condition. Also, visually inspect machine for any damage.
4. Do not change the engine governor setting or over-speed the engine. The governor controls the maximum safe operating speed of the engine.
5. Snow thrower shave plates and skid shoes are subject to wear and damage. For your safety protection, frequently check all components and replace with original equipment manufacturer's (O.E.M.) parts only. "Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety!"
6. Check clutch controls periodically to verify they engage and disengage properly and adjust, if necessary. Refer to the PTO and safety interlock system in your tractor's operator's manual for instructions.
7. Maintain or replace safety and instruction labels, as necessary.
8. Observe proper disposal laws and regulations for gas, oil, etc. to protect the environment.
9. Prior to storing, run machine a few minutes to clear snow from machine and prevent freeze up of auger/impeller.
10. Never store the machine or fuel container inside where there is an open flame, spark or pilot light such as a water heater, furnace, clothes dryer etc.
11. Always refer to the operator's manual for proper instructions on off-season storage.



WARNING — YOUR RESPONSIBILITY:

Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine.

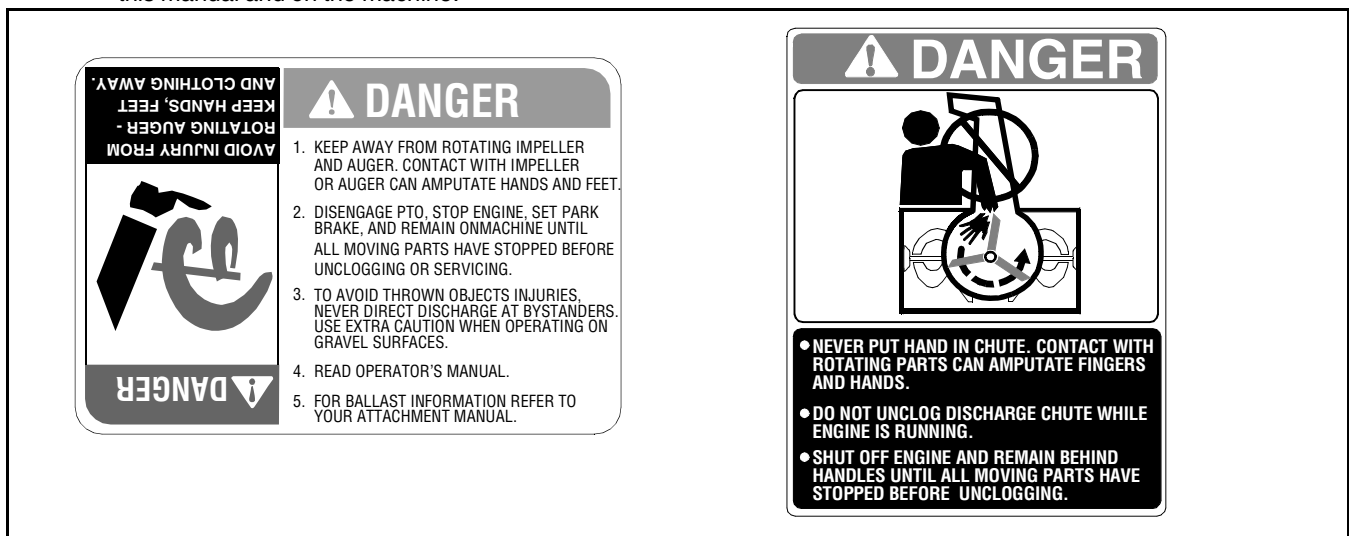


Figure 1 Safety Labels Found on Snow Thrower

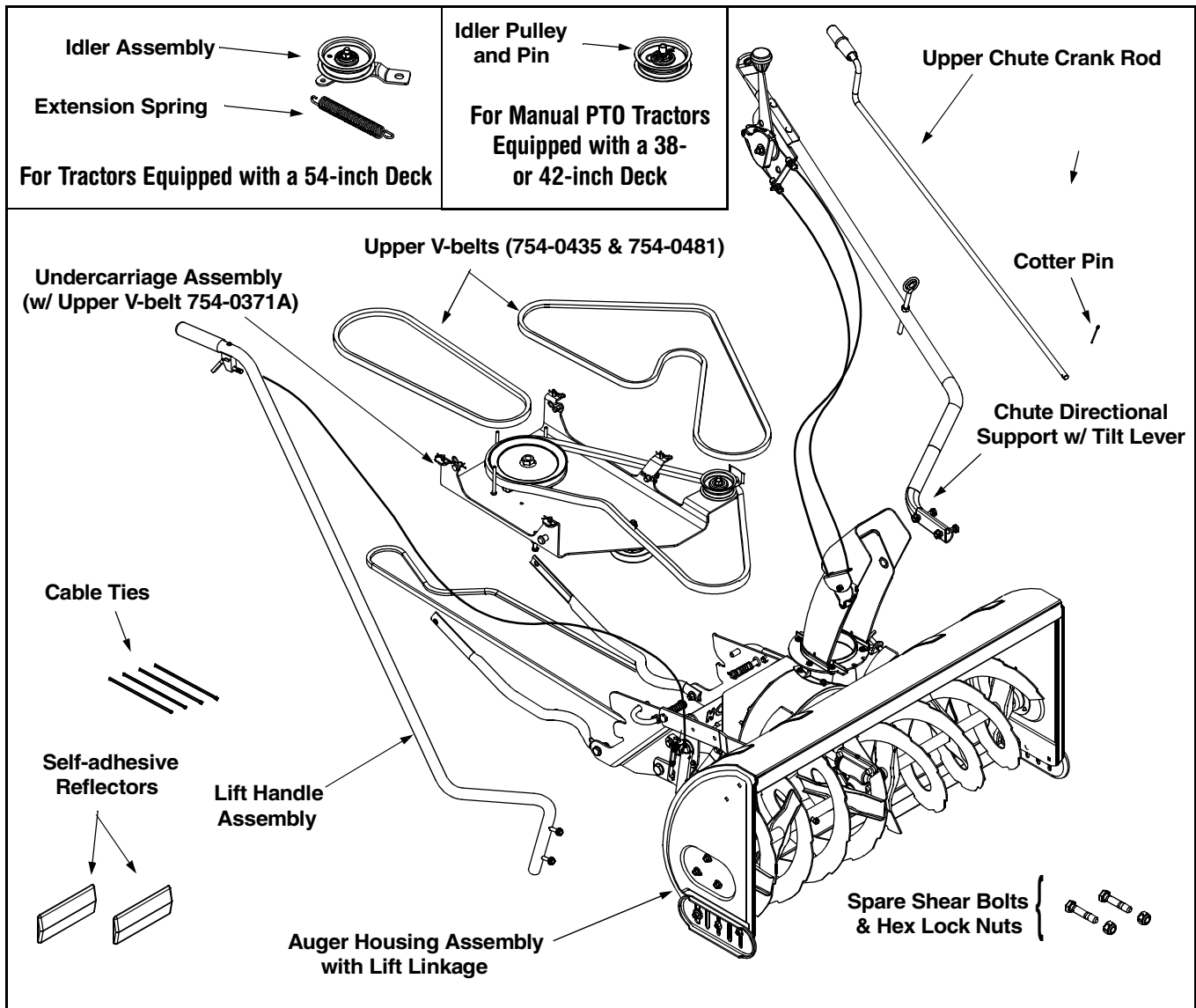
SECTION 2: TO THE OWNER

Model 823 42-inch two-stage snow thrower is designed for use on **FastAttach™ Compatible Lawn Tractors and Garden Tractors ONLY**. It will NOT fit nor operate properly or safely on ANY other tractor.

SECTION 3: CONTENTS OF CRATE

Before beginning installation, remove all parts from the carton to make sure everything is present. Carton contents are listed below and shown below. Part numbers are shown in parentheses.

- One Auger Housing Assembly w/ Lower V-belt
- One Undercarriage Assembly (packaged separately w/ Upper V-belt 754-0371A)
- One Idler Assembly (packaged separately w/ Extension Spring 732-0594A)
- One Idler Pulley (756-0627B) and Pin (650-0040) (packaged separately w/ Hair Pin Clip 714-0145)
- One Lift Handle Assembly
- One Upper Chute Crank Rod
- One Chute Directional Support w/ Tilt Lever
- Four Cable Ties (725-0157)
- Two Spare Shear Bolts (710-0890A) & Hex Lock Nuts (712-0429)
- One Cotter Pin (714-0507)
- Two Self-adhesive Reflectors (730-3000)
- One Upper V-belt (754-0481)
- One Upper V-belt (754-0435)



SECTION 4: ASSEMBLY



WARNING: Before installing attachment, place tractor on a firm and level surface. Place the PTO in the disengaged (OFF) position, set the parking brake, shut engine off and remove key to prevent unintended starting.

NOTE: References to *LEFT* and *RIGHT* indicate the left and right sides of the tractor when facing forward in the operator's position. Reference to the *FRONT* indicates the grille end; to the *REAR* the drawbar end.

Your tractor's cutting deck, PTO belt and front deck stabilizer bracket must be removed prior to mounting the snow thrower attachment. If your tractor is equipped with any front-end accessory (i.e. front bumper kit), it must also be removed.

Mounting the Idler Assembly (Tractors equipped with a 54-inch deck ONLY)

If you're mounting model 823 snow thrower attachment to a tractor equipped with any deck other than a 54-inch, proceed to either **Mounting the Idler Pulley and Pin (for Manual PTO Tractors equipped with a 38- or 42-inch deck ONLY)** or **Mounting the Undercarriage Assembly** on page 7.

However, if you're mounting model 823 snow thrower attachment to a tractor equipped **with a 54-inch deck**, proceed as follows.:

- Remove the flange nut, washer and shoulder spacer which secures the double-idler bracket to the undercarriage. See Figure 2.

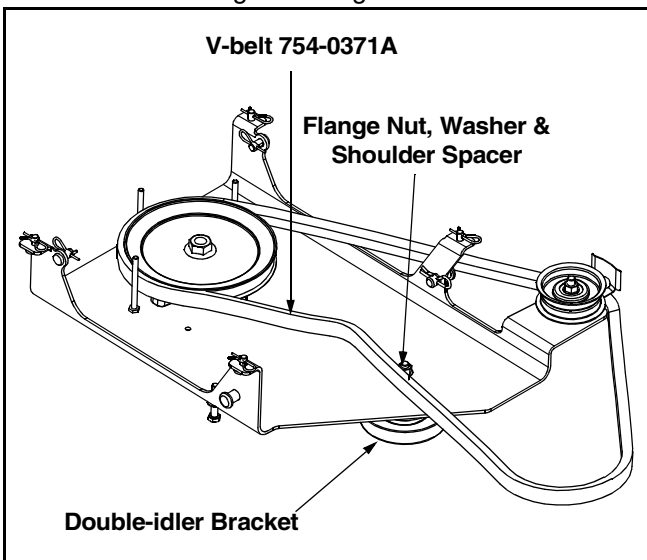


Figure 2

- Position the shoulder spacer and idler assembly (packaged separately) over the hex screw on the surface of the undercarriage. See Figure 3.
- Fasten the idler bracket to the undercarriage with the hardware just removed. See Figure 4.

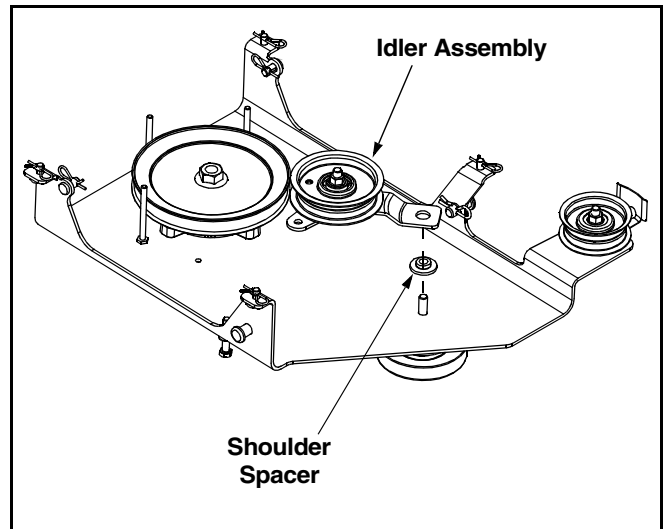


Figure 3

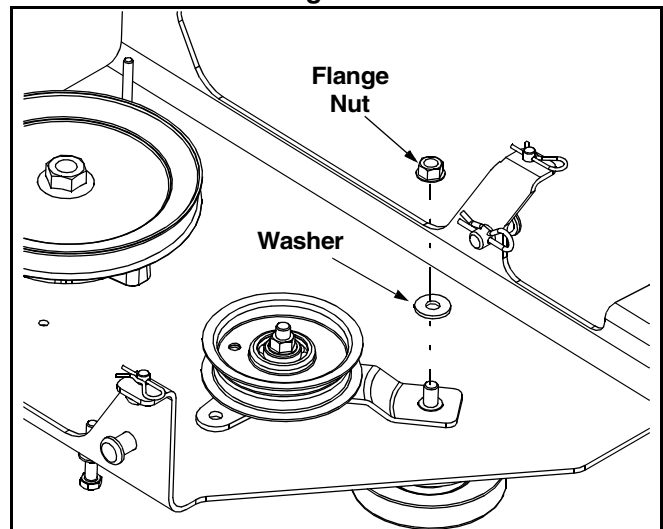


Figure 4

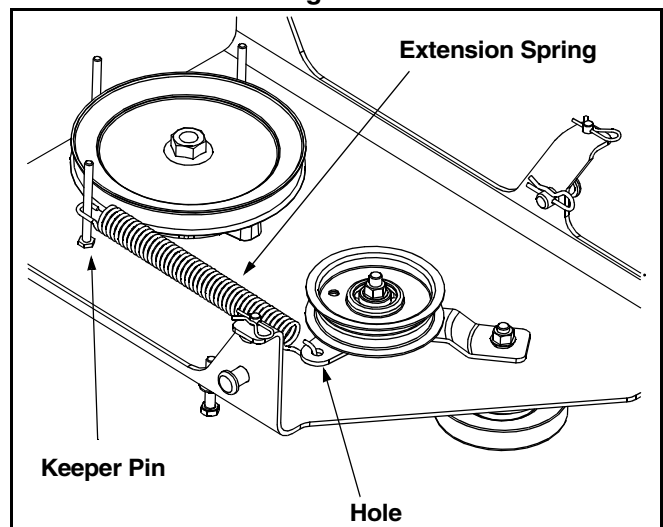


Figure 5

- Attach one end of the extension spring (732-0594A) to the hole in the idler assembly just mounted and the opposite end of the extension spring to the keeper pin as illustrated in Figure 5.
- Position the upper v-belt as illustrated in Figure 6.

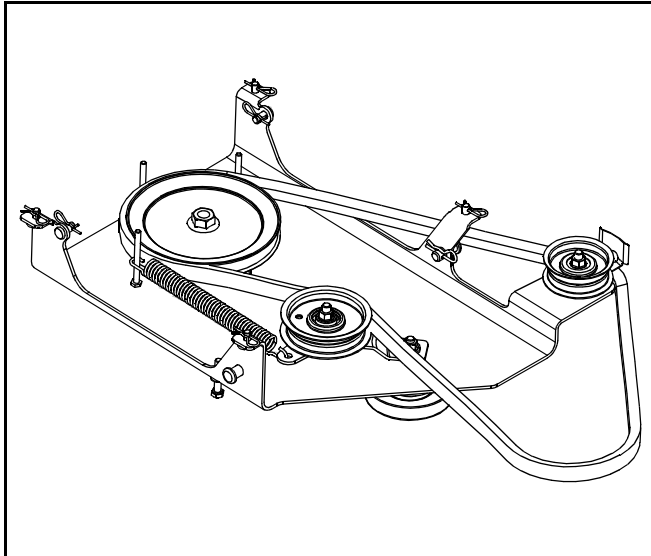


Figure 6

Mounting the Idler Pulley and Pin (Manual PTO Tractors equipped with a 38- or 42-inch deck ONLY)

The idler pulley and pin (packaged separately, Refer to •) must be installed to the PTO engagement plate of all manual PTO tractors with a dual-belt drive 38- or 42-inch cutting deck. If applicable, proceed as follows. Otherwise, proceed to **Mounting the Undercarriage Assembly**.

- Locate the PTO engagement plate beneath your tractor. See Figure 7.

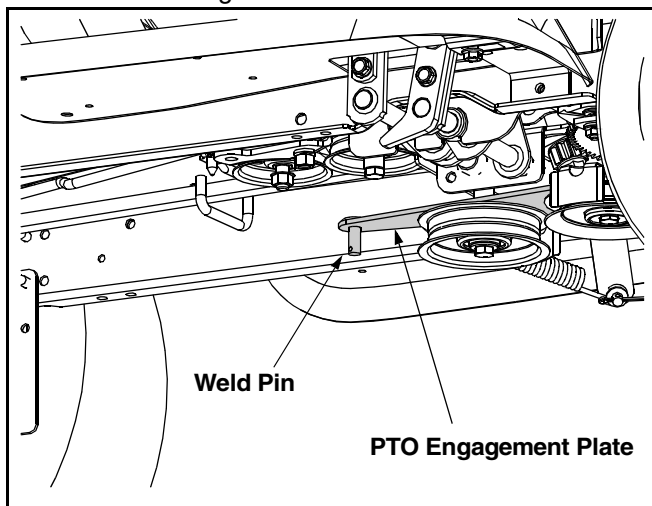


Figure 7

- Note the location of the weld pin on the rear portion of the PTO engagement plate. This pin is where the deck brake cable attaches, when operating the tractor with the cutting deck mounted. See Figure 7.
- Remove the hair pin clip from the idler pulley and pin (packaged separately).
- Position the idler pulley and pin onto the weld pin of the PTO engagement plate and secure with the hairpin clip just removed. See Figure 8.

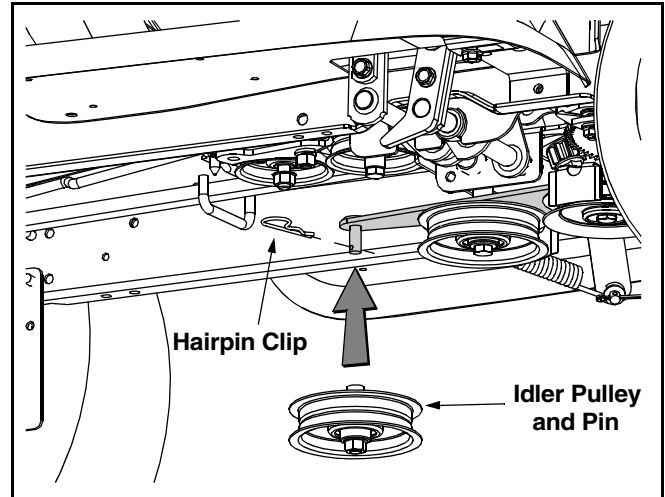


Figure 8

NOTE: This Idler pulley must be removed when remounting the tractor's cutting deck.

Mounting the Undercarriage Assembly (All model tractors)

Because model 823 snow thrower attachment is compatible with several model tractors with either an electric PTO or a manual PTO, three upper drive belts are included with it. Refer to the table below to determine which upper drive belt is applicable to your tractor. Belt part numbers are stamped on the outer edge of the belts.

Upper Drive Belt Reference Chart

	Electric PTO	Manual PTO
54-in. Deck	754-0371A	N/A
50-in. Deck	754-0371A	754-0481
46-in. Deck	754-0371A	754-0481
42-in. (single-belt drive) Deck	754-0371A	754-0481
42-in. (dual-belt drive) Deck	754-0371A	754-0435
38-in. (dual-belt drive) Deck	N/A	754-0435

NOTE: The undercarriage is illustrated in Figure 9 & Figure 10 without the idler assembly attached, as it would be if mounting to a tractor equipped with any deck other than a 54-inch.

1. Remove and retain the four hairpin clips from the weld pins found the top side of the undercarriage assembly. See Figure 9.

IMPORTANT: Make certain the correct upper drive belt is installed on the undercarriage assembly prior to proceeding with mounting the undercarriage. Make sure that the upper v-belt is routed to the **INSIDE** of the belt keeper found on the undercarriage idler pulley and the keeper pins found around the spindle pulley. Also, make certain that the flat side of the belt is facing outward as it sits against both the idler pulley and spindle pulley.

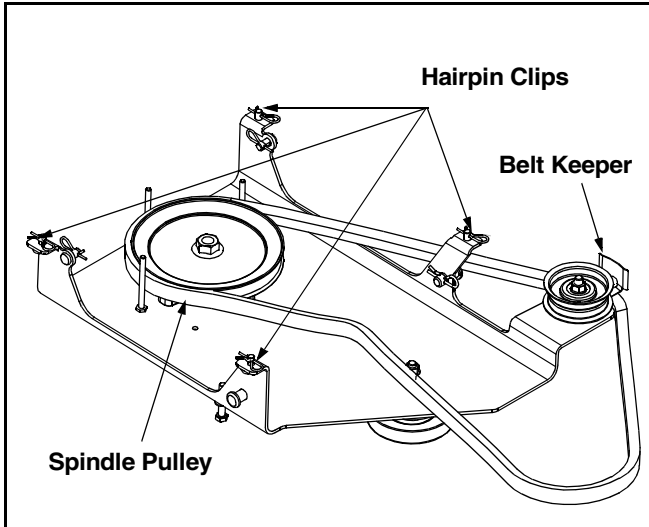


Figure 9

2. Position the undercarriage assembly beneath the tractor.
3. Move the tractor's deck lift lever into the lowest notch on the fender allowing the lift arms to drop.
4. Remove the two hairpin clips and clevis pins found on the rear portion of the undercarriage and align the holes in the rear of the lift arms with the holes in the rear of the undercarriage. See Figure 10.

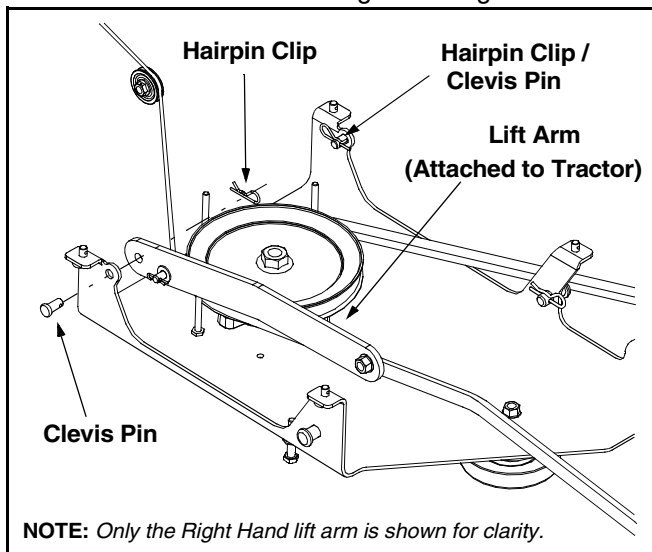


Figure 10

5. Reinsert the clevis pins removed in step 5 through both sets of holes and fasten with the hairpin clips.
6. Move the tractor's deck lift lever into the top notch on the right fender allowing the lift arms and the rear of the undercarriage assembly to rise.
7. Insert the weldpins found on the top side of the rear portion of the undercarriage assembly up through the aligning holes found along the tractor's frame rail. Fasten with the hairpin clips removed in step 2.
8. Repeat the previous step on the front portion of the undercarriage assembly.

Attaching The Lift Handle

1. Attach the lift handle to the lift bracket on the right side of the auger housing assembly with two hex screws and two flange nuts. See Figure 11.

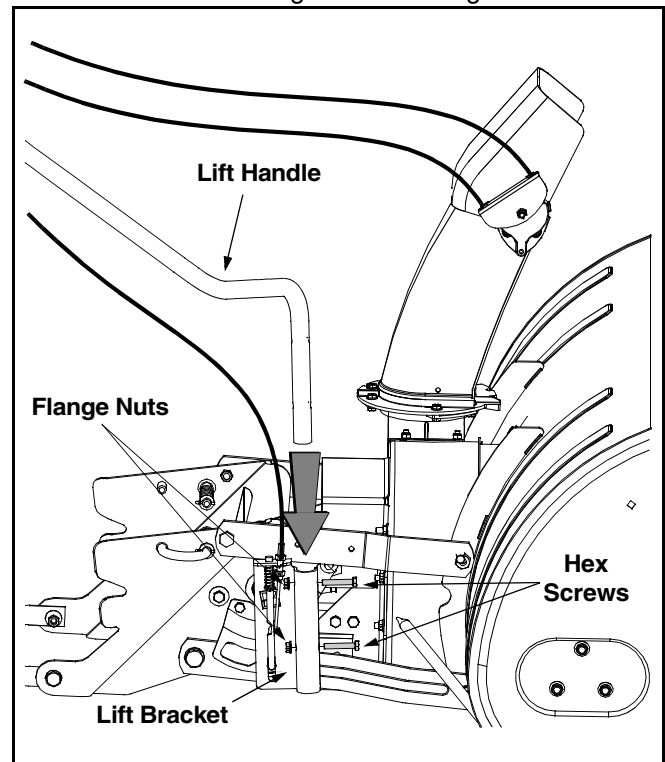


Figure 11

2. Fasten the lift cable to the lift handle with two of the cable ties provided. Pull the cable ties until they're snug and trim off any excess.

Attaching the Chute Directional Control

1. Attach the chute directional control assembly to the upper lift link on the left side of the auger housing assembly with two hex screws as illustrated in Figure 12. Secure with two flange nuts.
2. Slide the upper chute crank rod through the eyelet in the top of the chute directional control, the eyebolt found midway down and into the joint block found on the lower chute crank rod. See Figure 12.

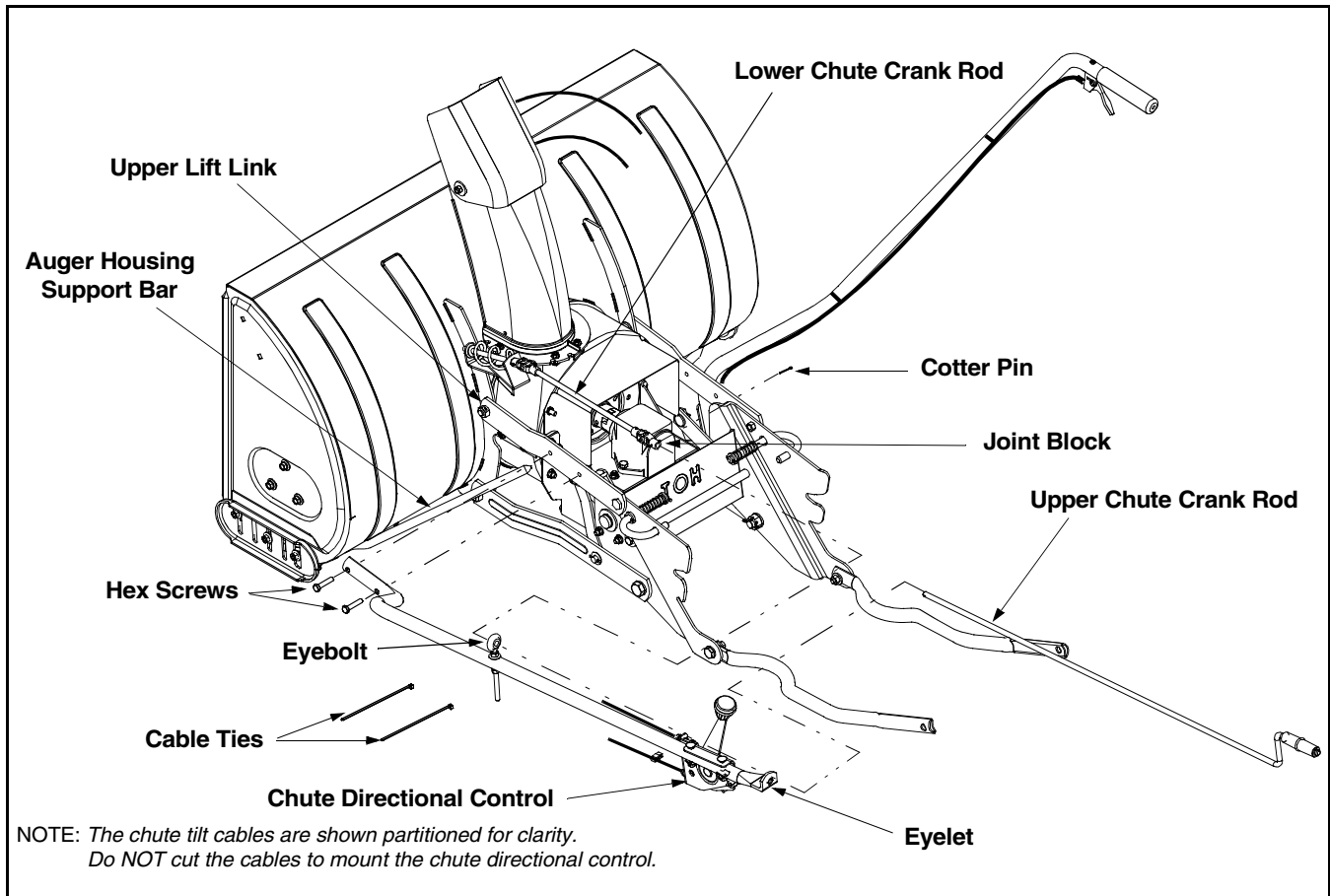


Figure 12

3. Secure the upper chute crank rod to the joint block on the lower chute crank rod with the cotter pin provided. See Figure 12.
4. Fasten the chute tilt cables to the chute directional control with two of the four cable ties provided. Pull the cable ties until they're snug and trim off excess.

Mounting the Auger Housing Assembly

1. Position the auger housing assembly in front of the tractor.
2. Pull the support pin on the right side of the upper lift link outward and rotate it forward so it remains in the "out" position. See Figure 13.
3. Repeat the step above on the left side.

IMPORTANT: It will be necessary to have a second person assist you to complete the following steps.

4. Carefully move the tractor forward (by pushing, NOT driving it) so that the support tubes found on the rear of the auger housing assembly are positioned between the tractor's front tires.



WARNING: Before installing attachment, place tractor on a firm and level surface. Place the PTO in the disengaged (OFF) position, set the parking brake, shut engine off and remove key to prevent unintended starting.

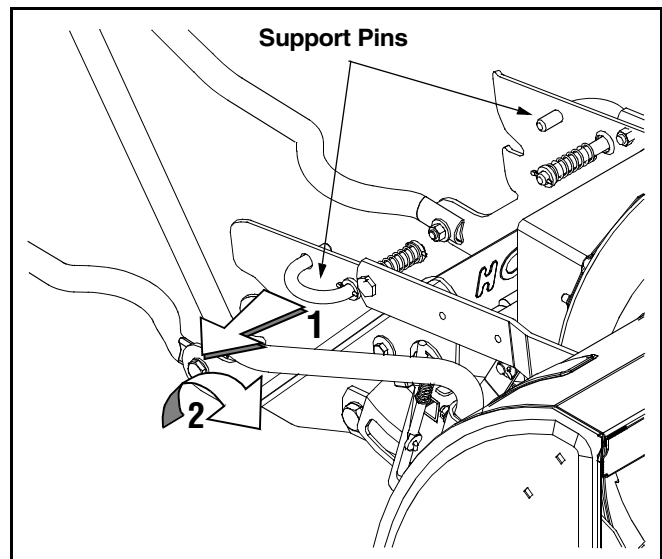


Figure 13

5. Grasp the auger housing support bar, refer to Figure 12, found on the left rear portion of the auger housing. Have an assistant grasp the support bar found on the right rear portion of the auger housing.
6. Simultaneously lift upward until the hooks found on the rear of the lift assembly are positioned over the shoulder bolts found on both the left and the right sides of the tractor's front pivot support brackets. See Figure 14.

7. Grasp the upper portion of the auger housing with both hands (where the decorative label is found) and pivot the assembly upward until the support pin holes align with the holes in the tractor's front pivot support bracket. Both of these holes are marked with an 'A' in Figure 14.

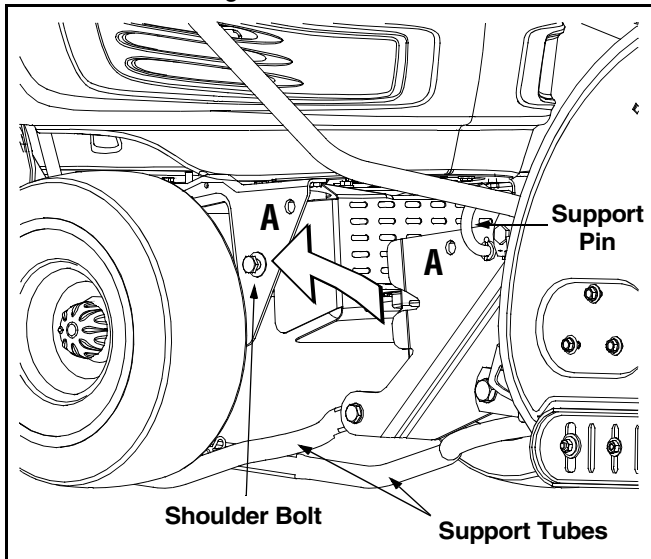


Figure 14

8. While holding the snow thrower attachment in this "up" position, have an assistant pull the support pin on the right side of the auger housing outward and rotate it slightly until it aligns with the hole on the side of the front pivot support bracket. The pin can then be released to lock it in place.
9. Repeat the previous step on the left side.

Attaching the Support Tubes

1. Remove the two clevis pins and hairpin clips found on both the left and right sides of the front of the undercarriage assembly. Retain this hardware.
2. Secure the right support tube to the front of the undercarriage assembly with the clevis pin and hairpin clip just removed. See Figure 15.

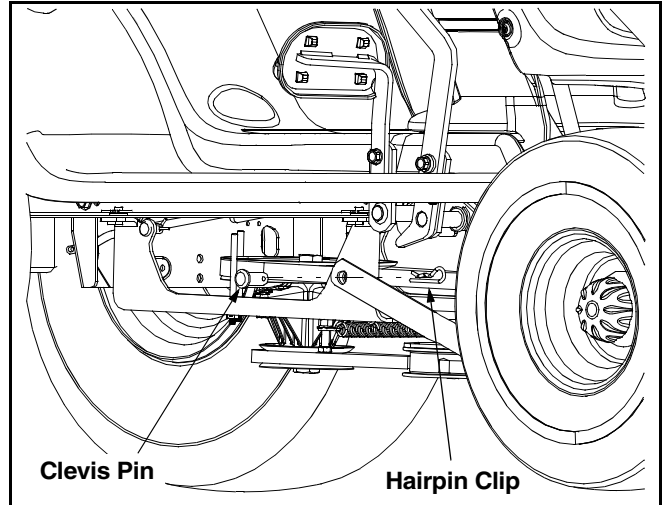


Figure 15

3. Repeat the previous step on the left side.

Routing the Upper Drive Belt (Tractor Models Equipped with a 54-inch Deck)

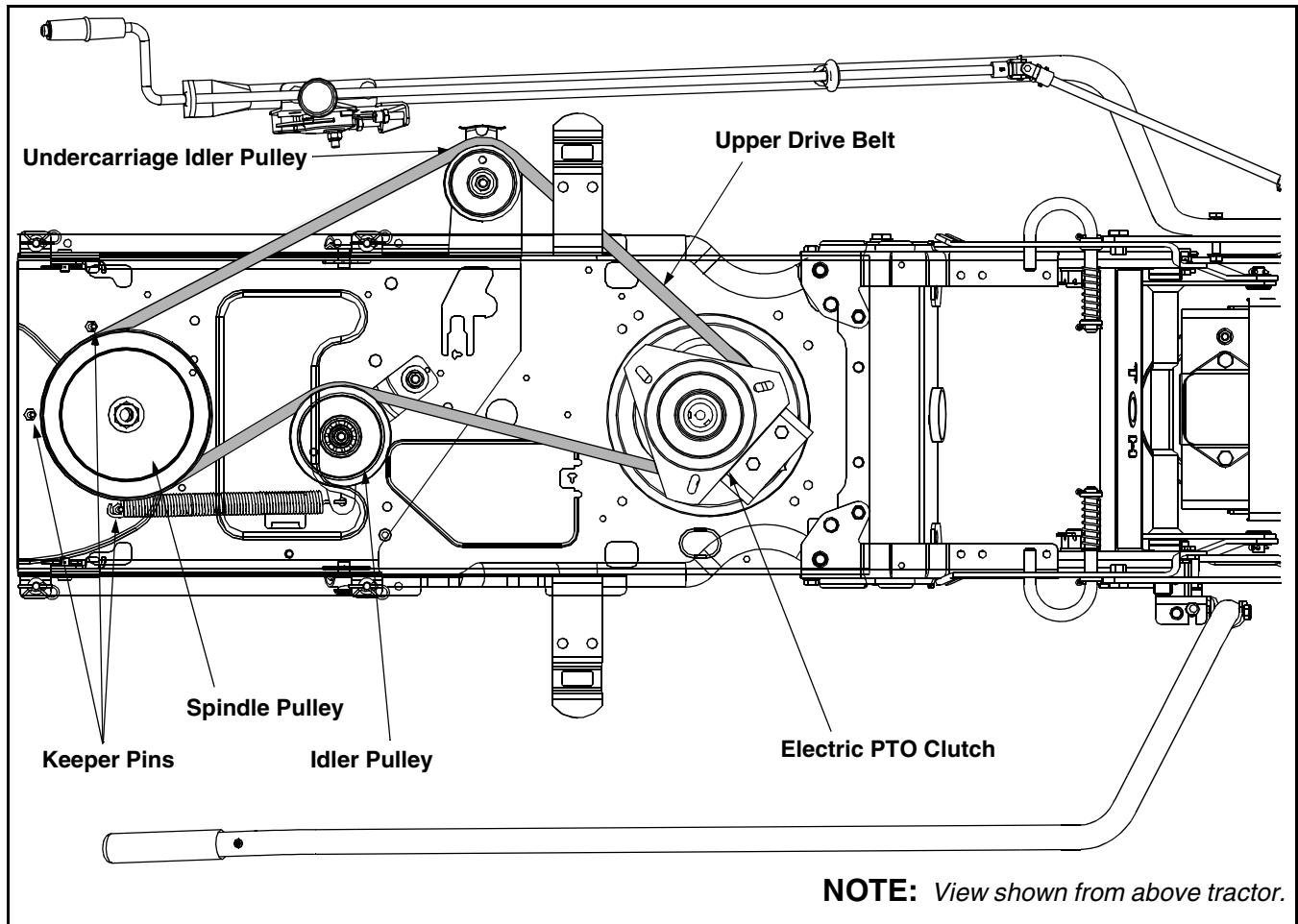
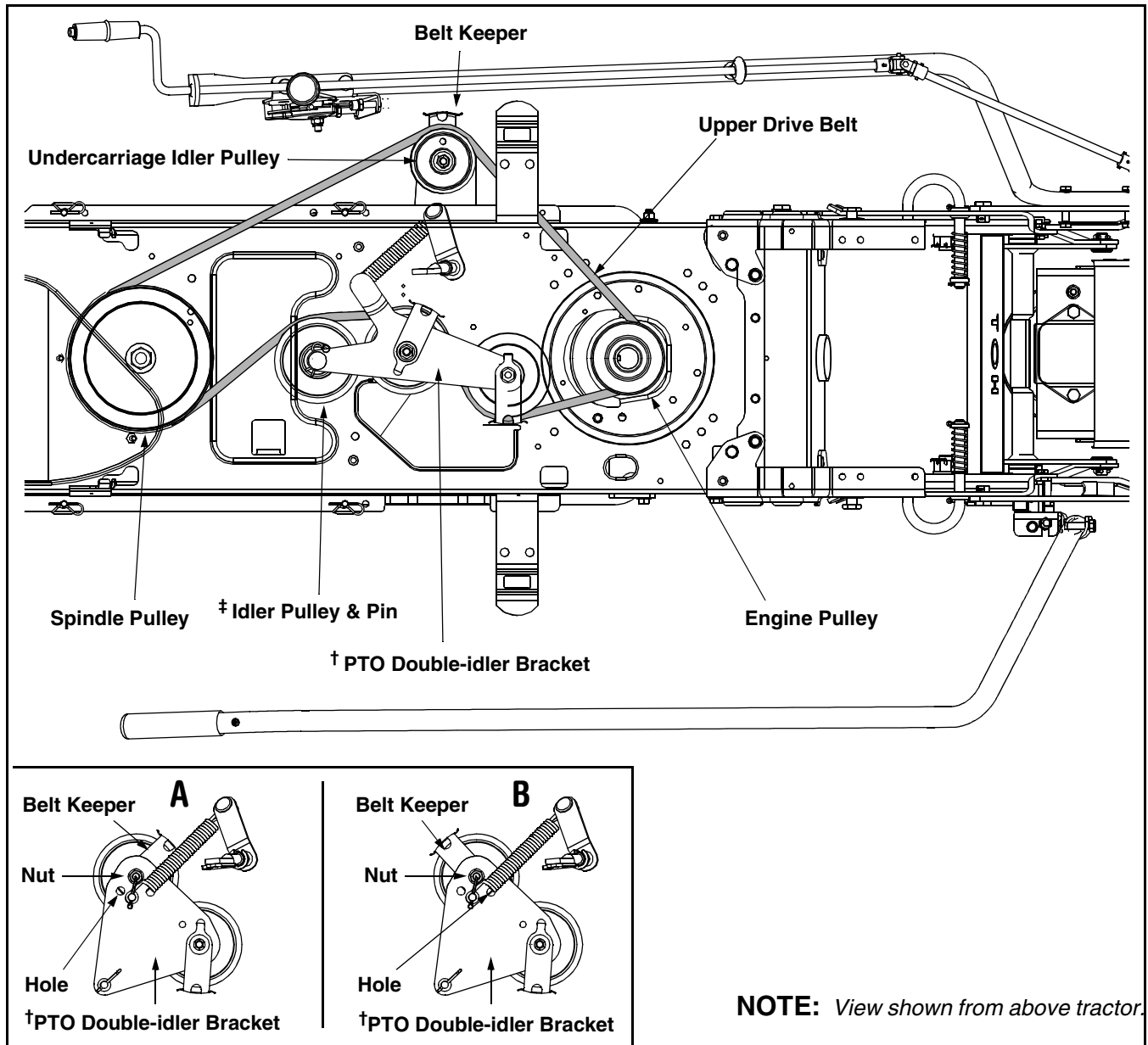


Figure 16

1. Route the upper drive belt around the spindle pulley, the pulley found on the idler assembly mounted earlier, the undercarriage idler pulley and the electric PTO clutch as illustrated in Figure 16. Make sure that the belt is routed to the **INSIDE** of all the keeper pins on the spindle pulley.

IMPORTANT: Make certain that the flat side of the belt is facing outward as it sits against both the electric PTO clutch and spindle pulley. This allows the “V” side of the belt to ride snugly in both pulleys.

Routing the Upper Drive Belt (Tractors Models with a Manual PTO)



NOTE: View shown from above tractor.

Figure 1

† The shape of the double-idler bracket varies by model. The belt routing is as pictured in Figure 16, regardless of the bracket's shape. If the PTO double-idler bracket on your tractor resembles that shown in the inset of Figure 16, proceed to Step 1 below. If the PTO double-idler bracket on your tractor resembles that shown in the main illustration of Figure 16, however, step one below can be disregarded.

‡ The Idler Pulley and Pin are found only on Manual PTO tractors equipped with a 38- or 42-inch Deck. Refer to Page 7.

1. Refer to the inset of Figure 16. The belt keeper found on the leftmost pulley on the PTO double-idler bracket may have to be repositioned. Position **A** is the proper location for operation of the cutting deck. Position **B** is the proper location for operation of the snow thrower attachment. To reposition the belt keeper, loosen, but do NOT remove the nut which secures the pulley to the double-idler bracket. Rotate the belt keeper until the metal tab on its rear portion is firmly seated in the hole provided (See inset of Figure 16), and retighten the nut.
2. Attach and route the proper upper drive belt (refer to the table on page 7) around the spindle pulley and idler pulley found on the undercarriage, the lower portion of the engine pulley and the two pulleys found on the PTO double-idler bracket as illustrated in Figure 16. Make sure that the belt is routed to the **INSIDE** of all belt keepers on the idler pulleys and the keeper pins found around the spindle pulley.

Routing the Upper Drive Belt (Tractors Models with an Electric PTO*)

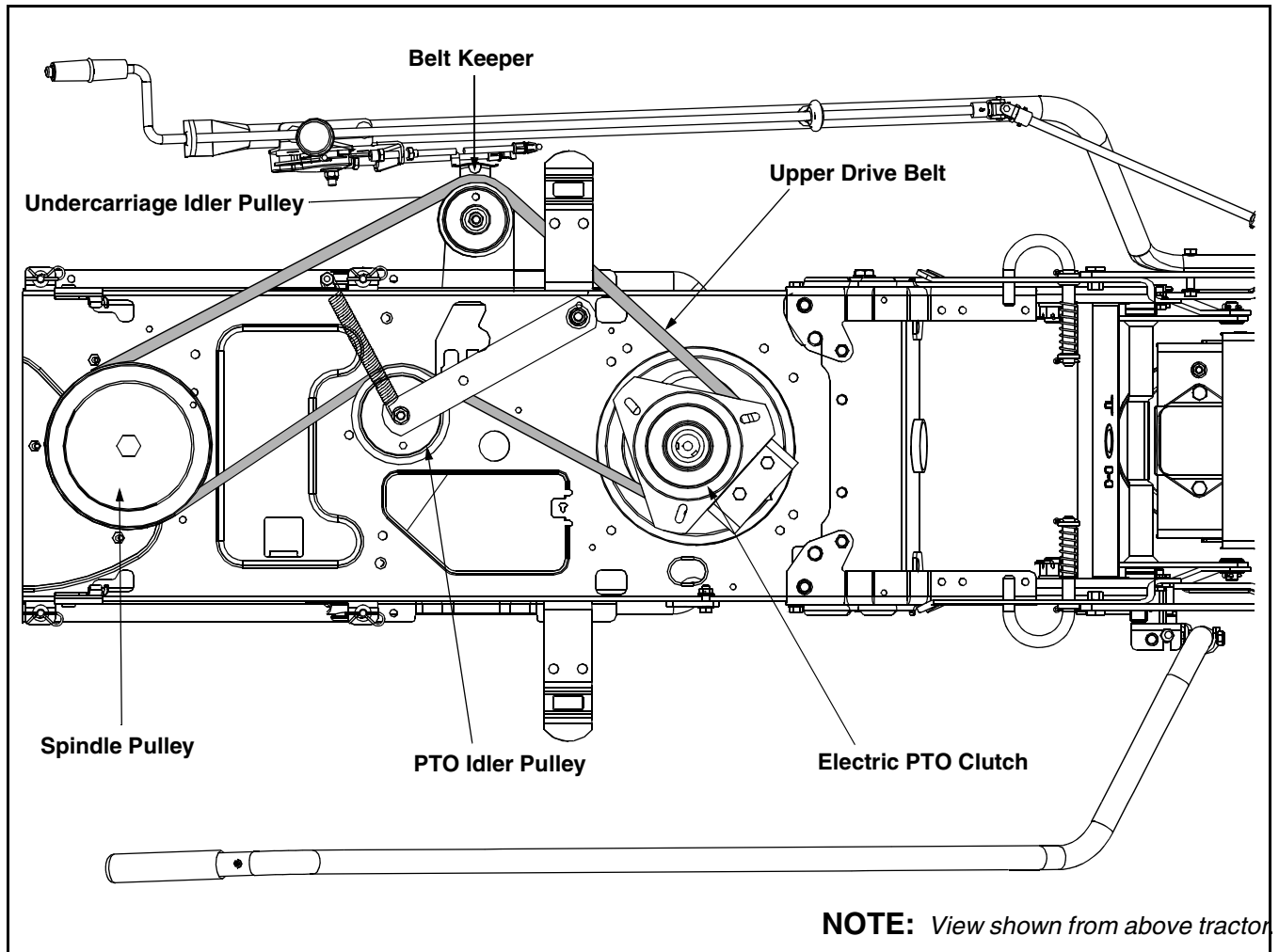


Figure 17

* The belt-routing configuration illustrated in Figure 17 DOES NOT apply to tractors equipped with a 54-inch deck. For tractors equipped with a 54-inch deck, refer to Figure 16 on page 11.

1. Attach and route the upper drive belt around the spindle pulley and idler pulley found on the undercarriage, the electric PTO clutch and the PTO idler pulley as illustrated in Figure 17. Make sure that the belt is routed to the INSIDE of the belt keeper on the undercarriage idler pulley and the remaining keeper pins found around the spindle pulley.

IMPORTANT: Make certain that the flat side of the belt is facing outward as it sits against both the electric PTO clutch and spindle pulley. This allows the “V” side of the belt to ride snugly in both pulleys.

Routing the Lower Drive Belt (All tractor Models)

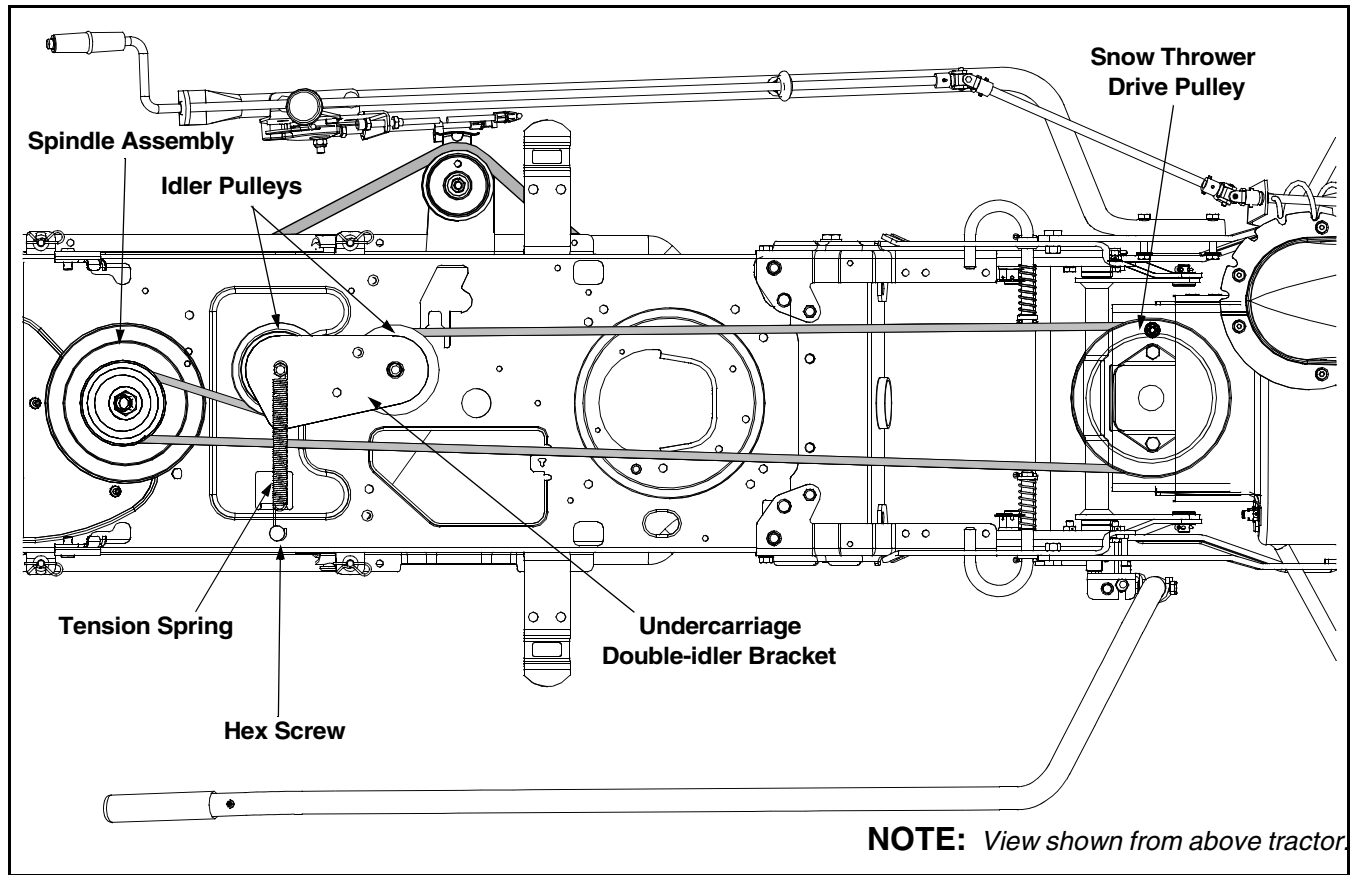


Figure 18

1. Attach and route the lower drive belt around the lower pulley on the spindle assembly, both pulleys on the double-idler bracket found beneath the undercarriage, and the drive pulley found on the rear of the snow thrower housing as illustrated in Figure 18.
2. Attach the tension spring (found on the undercarriage double-idler bracket) to the hex screw as shown in Figure 18 if it's not already attached.

Attaching the Reflectors

Peel off the backing from each of the reflectors to expose the adhesive surface. Adhere the reflectors to the rear of the tractor's fender (one on the left and one on the right) so that the reflectors simulate taillights.

SECTION 5: CONTROLS



WARNING: Be familiar with all controls and their proper operation. Know how to stop the machine and disengage them quickly.

Engaging the Augers and Impeller

Power to the snow thrower attachment is activated by engaging the tractor's PTO.

- Place the tractor's throttle control in the FAST (rabbit) position and allow it to remain there for efficient snow removal.

- Move the PTO knob into the "ON" position to engage the augers and impeller.
- Move the PTO knob into the "OFF" position to disengage the augers and impeller.

NOTE: The PTO knob (on units so equipped) cannot be in the engaged (ON) position when the tractor is driving in the reverse direction. The PTO knob must be in the disengaged (OFF) position when the shift lever is placed in REVERSE or the electric PTO clutch will automatically shut off.

NOTE: The PTO lever (on units so equipped) cannot be in the engaged (ON) position when the tractor is driving in the reverse direction. The PTO lever must be in the disengaged (OFF) position when the shift lever is placed in REVERSE or the tractor's engine will automatically shut off.

Refer to your tractor's Operator's Manual for more information regarding your tractor's PTO and safety interlock system.

Lift Handle

The lift handle is located on the right side of the tractor and is used to raise and lower the snow thrower attachment.

- To raise the snow thrower attachment off of the ground, pull rearward and down on the lift handle until you feel the lift latch on the right side of the snow thrower engage, locking the snow thrower in a raised position.

- To lower the snow thrower, push downward on the lift handle until there is enough slack in the lift cable so that you may squeeze the trigger control. With the trigger control squeezed, gently allow the snow thrower to lower until it reaches the ground.

Chute Directional Control

The chute directional control assembly is found on the left side of the tractor and includes both the chute tilt lever as well as the chute crank. Both affect the direction that the discharged snow is thrown.

- To pivot the upper section of discharge chute, affecting the distance and angle which the snow is thrown, move the chute tilt lever forward or rearward into a desired position.
- The direction which snow is thrown can be changed by rotating the discharge chute with the chute crank. Turn the chute crank clockwise to rotate the chute and discharge snow to the left. Crank it counterclockwise to rotate the chute and discharge snow to the right.

SECTION 6: OPERATION



WARNING: Read, understand, and follow all instructions and warnings on the tractor, attachment, and in the Operator's Manuals before operating.

Your snow thrower attachment is capable of displacing snow and clearing a path a width of 42 inches.

Observe the following operating instructions for efficient snow removal.

- Become familiar with and comfortable using all of your tractor's controls as instructed in your tractor's Operator's Manual before operating it with the snow thrower attachment.
- Make certain the correct weight (and volume) of motor oil in is your tractor's engine as instructed in the tractor's Operator's Manual.
- Always operate the snow thrower with the tractor's engine at maximum RPM (full throttle).
- NEVER override any safety features on either your tractor or the snow thrower attachment.
- Make certain that all nuts, bolts, and hardware are fastened securely and tight on both the tractor and the snow thrower attachment prior to use.
- Make certain the snow thrower is assembled properly and mounted to the tractor as instructed in this manual.
- Test all the controls (tractor PTO, snow thrower lift handle, chute tilt lever & chute crank) for smooth operation prior to operating the snow thrower in snow.
- Make all adjustments (i.e. skid shoes, lift latch) before operating your snow thrower attachment. Follow instructions in the Adjustments section of this manual when doing so.
- Engage the tractor's PTO to activate power to the augers and impeller BEFORE driving the tractor forward and into snow.
- Keep your tractor's ground-speed slow. The slower your tractor is traveling, the more effectively the snow thrower attachment can displace snow.
- Adjust ground speed for snow conditions and become familiar with different snow applications. Your snow thrower attachment will operate differently in wet heavy snow than it will in light, fluffy snow.
- Overlap a previously cleared path when necessary (deep snow) so as not to overload the auger housing with snow.
- NEVER drive the tractor into a snow bank. The snow thrower attachment is not a dozer plow. The lift linkage and/or the snow thrower drive system can be damaged as a result of "plowing" with the snow thrower attachment.

- If the augers become jammed with a chunk of ice or a foreign object, move the PTO into the disengaged (OFF) position immediately and turn off the tractor's engine and remove the ignition key. Examine the auger area thoroughly for damage and do NOT operate the snow thrower attachment until any damage is repaired.

IMPORTANT: The augers are secured to the spiral shaft with two shear bolts and hex lock nuts. If you hit a hard foreign object or an ice jam, the snow thrower is designed so that the bolts may shear. Two replacement shear bolts and hex lock nuts are provided for your convenience. Store in a safe place until needed. NEVER replace the auger shear bolts with standard hex bolts. Any damage to the auger gearbox or other components as a result of doing so will NOT be covered by your snow thrower's warranty.

- Whenever possible, discharge snow downwind.
- Do NOT attempt to remove ice or hard-packed frozen snow.
- When the tractor (with the snow thrower attachment mounted) is not in use, use the lift lever to lower the auger housing assembly to the ground to relieve strain on the tractor's front end between uses.
- Always use tire chains and rear wheel weights on your tractor where extra traction is needed. Refer to the table to the right to determine which kits will fit your tractor (tire dimensions are can be found on the sidewalls of your tractor's tires).
- Use drift cutters to aid in displacing snow through deep, drifted areas.

	Tire Chain Kit Number
Garden Tractors	
23" x 9.5" tires	OEM-190-964
22" x 7.5" tires	OEM-190-974
Lawn Tractors	
20" x 10.0" tires	OEM-190-916
20" x 8.0" tires	OEM-190-658
18" x 9.5" tires	OEM-190-657
18" x 8.5" tires	OEM-190-754
18" x 6.5" tires	OEM-190-664
	Wheel Weight Kit Number
All Garden Tractors	OEM-190-784
All Lawn Tractors	OEM-190-215
	Drift Cutter Kit Number
All Tractors	OEM-390-679

NOTE: None of the kits in the table are included as standard equipment with snow thrower attachment OEM-190-823/190-823-101. Call our Customer Support Department as instructed on page 2 of this manual for availability and information regarding these kits.

SECTION 7: MAKING ADJUSTMENTS



WARNING: Never attempt to make any adjustments while the engine is running, except where specified in the Operator's Manual. Place tractor on a firm and level surface. Place the PTO in the disengaged (OFF) position, set the parking brake, shut engine off, and remove key to prevent unintended starting.

Lift Adjustment

If the lift index rod doesn't latch securely or the pivot release has too much slack in it, an adjustment can be made as follows:

- Loosen the upper hex nut a few turns, then tighten the lower hex nut to shorten the cable length. See Figure 19.
- Loosen the lower hex nut a few turns, then tighten the upper hex nut to lengthen the cable. See Figure 19.

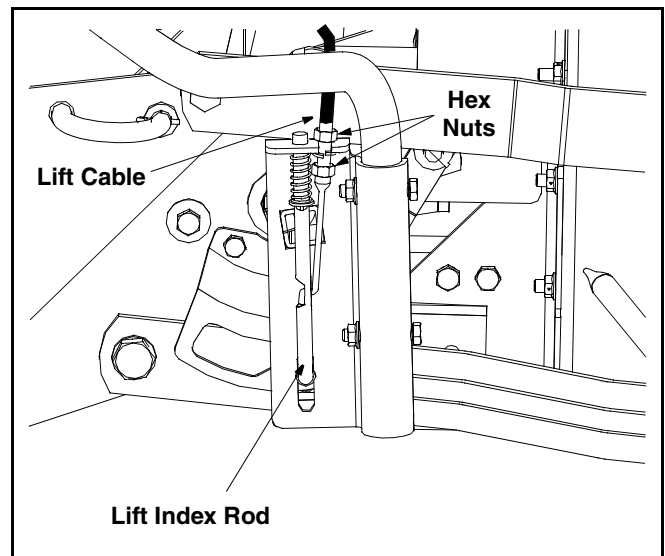


Figure 19

Lower Chute Crank Support Bracket Adjustment

If the spiral at the base of the lower chute crank isn't fully engaging with the notches in the lower chute assembly, the support bracket can be adjusted inward or outward as follows:

- Loosen, but do NOT remove the two hex nuts which secure the support bracket to the snow thrower housing. See Figure 20.

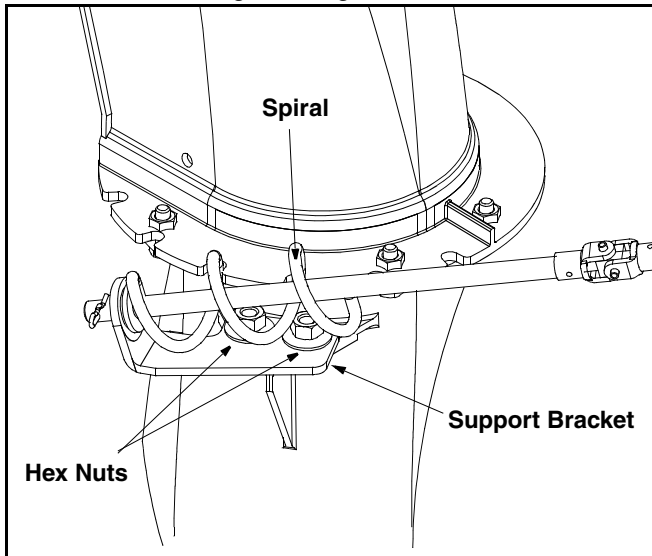


Figure 20

- Adjust the support bracket inward or outward so that the spiral is fully engaged in the notches on the chute before retightening the hex nuts.

Skid Shoe Adjustment

The space between the shave plate and the ground can be adjusted by repositioning the skid shoes found on either side of the snow thrower's auger housing. For close snow removal, place skid shoes in the low position. Use a middle or high position when the area to be cleared is uneven.

IMPORTANT: It is NOT recommended that this snow thrower be operated on a gravel surface, as loose stones can be easily picked up and thrown by the machine. If you must operate on a gravel surface, ALWAYS adjust the skid shoes into the HIGH position to allow the shave plate maximum clearance.

Adjust skid shoes as follows:

- Loosen, but do NOT remove, the three hex nuts which fasten the skid shoe to the auger housing. See Figure 21.
- Raise or lower the skid shoe to desired position.

NOTE: Make certain the entire base of both skid shoes are against the ground to avoid uneven wear on the skid shoes. When one side does wear out, the skid shoes are reversible.

- Retighten the hex nuts loosened earlier.
- Repeat this adjustment on the skid shoe found on the opposite side of the snow thrower.

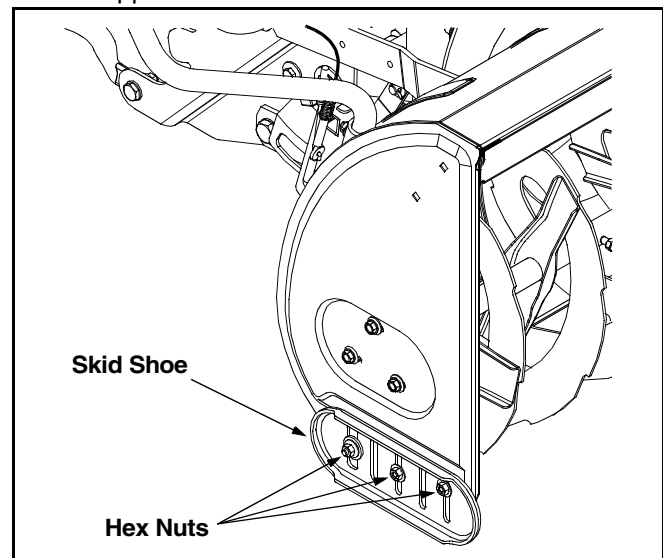


Figure 21

SECTION 8: MAINTENANCE



Before lubricating, repairing, or inspecting, place tractor on a firm and level surface. Place the PTO in the disengaged (OFF) position, set the parking brake, shut engine off, and remove key to prevent unintended starting.

Lubrication

Chute Directional Control

The spiral on the end of the lower chute crank, the base of the discharge chute itself and the joint blocks which connect the lower and upper chute cranks should be lubed with multi-purpose automotive grease once a season. See Figure 22.

Auger Shaft

- At least once a season, remove the shear bolts on the auger shaft. Oil or spray lubricant inside and on the plastic bearings on the shaft and near the holes where the shear bolts were removed before reattaching them. See Figure 23.

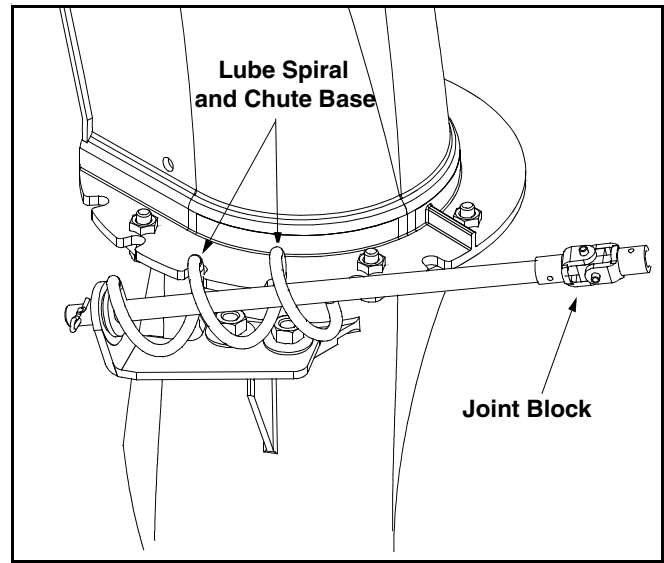


Figure 22

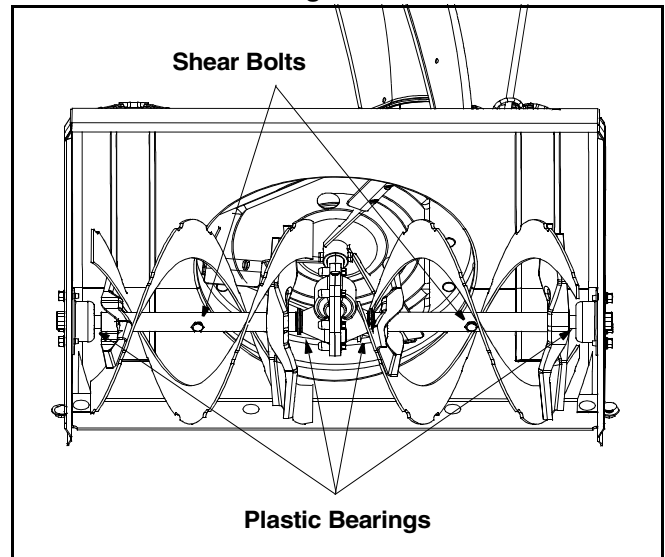
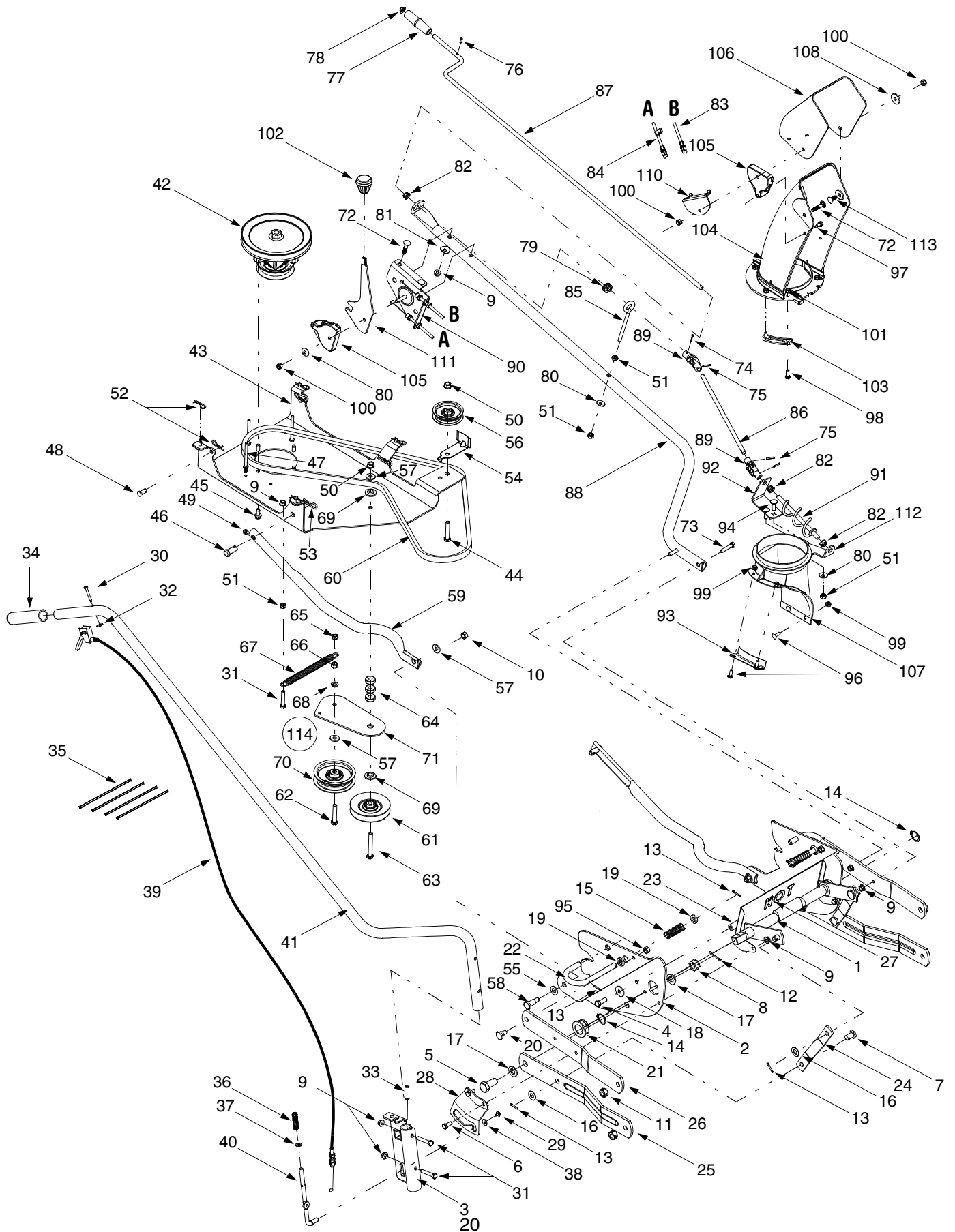


Figure 23

NOTES

SECTION 9: MODEL 823 PARTS LIST

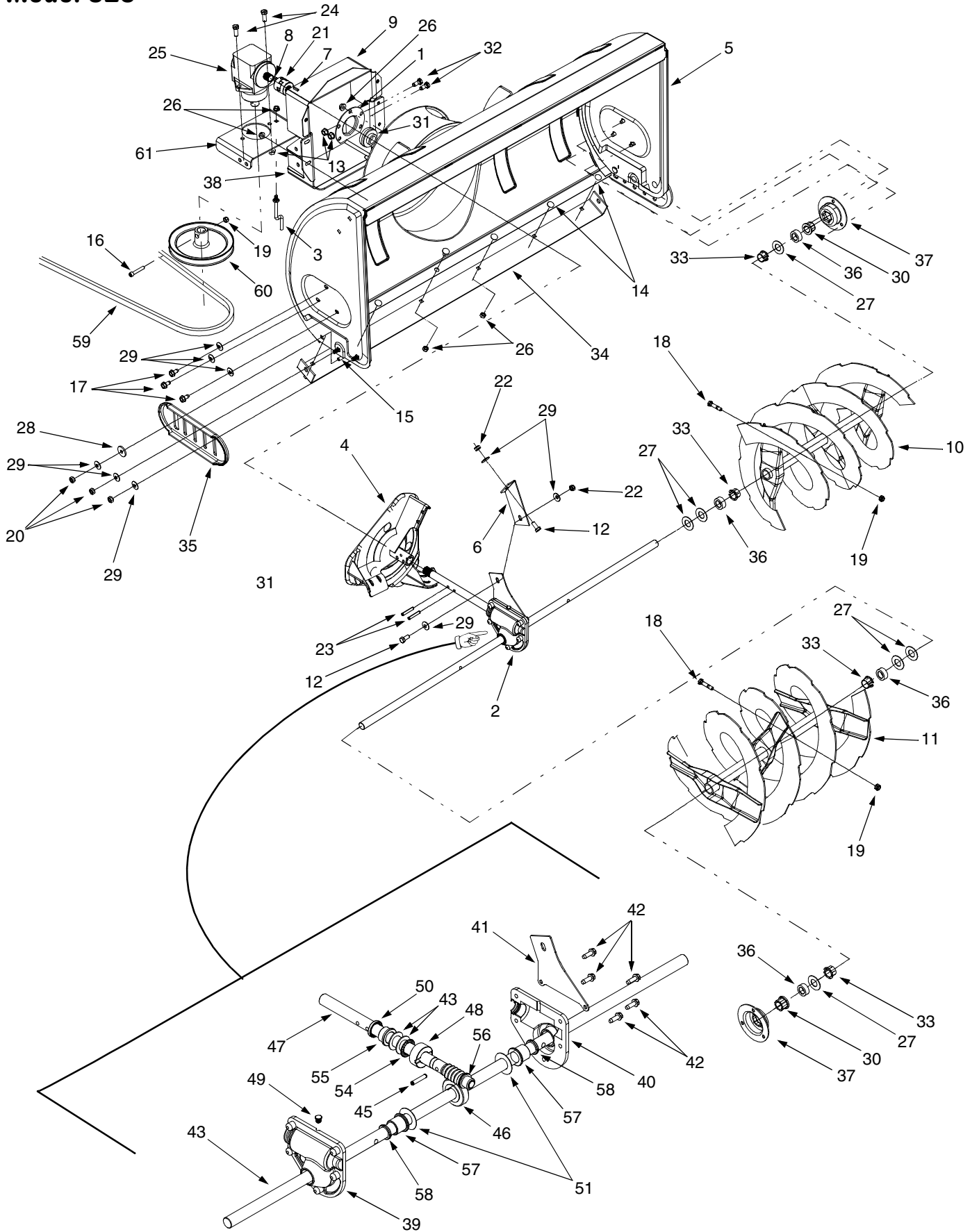


Model 823

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	611-0132	Rod Assembly	59	749-1104	RH Support Tube
2	684-0150	RH Support Plate Assembly		749-1103	LH Support Tube
	684-0151	LH Support Plate Assembly	60	754-0371A	Upper V-belt*
3	683-0298	Lift Bracket Assembly		754-0435	Upper V-belt*
4	710-0514	Hex Cap Screw, 3/8-16 x 1.0		754-0481	Upper V-belt*
5	710-0964A	Hex Cap Screw, 5/8-18 x 1.31	61	756-0487	Idler pulley, 4" Diameter
6	710-3008	Hex Cap Screw, 5/16-18 x .75	62	710-0151	Hex Cap Screw, 3/8-24 x 2
7	711-0332	Clevis Pin, .5 x .78	63	710-0521	Hex Cap Screw, 3/8-16 x 3
8	712-0386A	Slotted Hex Nut, 5/8-18	64	711-0242	Spacer
9	712-3004A	Flange Lock Nut, 5/16-18	65	712-0116	Nylon Jam Lock Nut, 3/8-24
10	712-3017	Hex Nut, 3/8-16	66	712-0241	Hex Nut, 3/8-24
11	712-3022	Hex Lock Nut, 1/2-13	67	732-0978	Extension Spring, .620 x 5.62
12	714-0470	Cotter Pin, 1/8 x 1.25	68	736-0169	Lock Washer, 3/8
13	714-0474	Cotter Pin, .125 x .75	69	738-0347	Shoulder Spacer, .625 x .169
14	716-0102	Snap Ring	70	756-0627B	Idler Pulley, 3.5" Diameter
15	732-0987	Compression Spring, .72 x 2.25	71	784-5727	Idler Pivot Arm
16	736-0272	Flat Washer, .51 x 1.0 x .060	72	710-0262	Carriage Bolt, 5/16-18 x 1.5
17	736-0366	Flat Washer, .64 x 1.12 x .125	73	710-0805	Hex Cap Screw, 5/16-18 x 1.5
18	736-0452	Bell Washer, .396 x 1.14 x .095	74	714-0507	Cotter Pin, 3/32 x .75
19	736-3069	Flat Washer, .531 x .875 x .15	75	715-0129	Spirol Pin, .125 x .82
20	738-0234	Shoulder Screw, .5 x .29, 3/8-16	76	715-0138	Rolled Pin, 1/8 x .63
21	741-0170	Flange Bearing w/ Flats	77	720-0201A	Crank Knob
22	747-1191	Handle Rod	78	726-0100	Push Cap, 3/8 ID
23	747-1192	Rod, 1/2 x 11.55	79	735-0234	Rubber Grommet, .44 x .94 x .5
24	783-0876	Link, 5.875	80	736-0242	Bell Washer, .34 x .872
25	783-0877	Link, 15.3	81	736-0451	Saddle Washer, .32 x .93
26	783-0878	Link, 13.25	82	741-0475	Plastic Bushing
27	783-1274A	Heat Shield	83	746-1108	Chute Cable, 62"
28	703-2728A	Snow Thrower Lift Bracket	84	746-1109	Chute Cable w/ Clip, 62"
29	710-1268	Hex Index Washer Screw #10-16 x .375	85	747-0697	Eye Bolt
30	710-3143	Pan Phillips Screw, #10-24 x .75	86	747-0932	Rod, .375 x 11.375
31	710-3108	Hex Cap Screw, 5/16-18 x 1.75	87	747-1201	Chute Crank Rod, .375 x 33
32	712-0127	Flat Weld Nut, #10-24	88	750-1231	Support Chute Tube
33	715-0114	Heavy Duty Spirol Pin, 1/4 x 1.5	89	784-5149	Joint Block Assembly
34	720-0274	Handle Grip	90	603-0302	Chute Tilt Bracket Assembly
35	725-0157	Cable Tie	91	684-0061	Chute Crank Assembly
36	732-0306	Compression Spring, .406 x .531 x 1.75	92	703-2735A	Chute Crank Bracket
37	736-0140	Flat Washer, .385 x .62 x .063	93	705-5226	Chute Reinforcer
38	736-0400	Flat Washer, .194 x .62 x .063	94	710-0276	Splined Carriage Screw, 5/16-18 x 1.0
39	746-1103	Lift Cable, 42" w/ Trigger Control	95	712-3000	Hex Lock Nut, 3/8-16
40	747-1203	Lift Index Rod	96	710-0703	Screw, 1/4-20 x .75
41	750-1221	Lift Handle Tube	97	710-0896	Hex Index Washer Screw, 1/4-14 x .625
42	618-0411	Spindle Assembly	98	710-3015	Hex Cap Screw, 1/4-20 x .75
43	683-0306	Pulley Mounting Bracket	99	712-0324	Nylon Hex Lock Nut, 1/4-20
44	710-0347	Hex Cap Screw, 3/8-16 x 1.75	100	712-0429	Nylon Hex Lock Nut, 5/16-18
45	710-1260A	Self Tapping Screw, 5/16-18 x .75	101	712-3027	Hex Flange Lock Nut, 1/4-20
46	711-0310	Clevis Pin, .5 x 1.18	102	720-0232	Knob
47	711-1000	Belt Keeper Pin	103	731-0851A	Chute Flange Keeper
48	711-1421	Clevis Pin, 3/8 x .75	104	731-1300B	Lower Chute
49	712-0291	Hex Lock Nut, 1/4-20	105	731-1313C	Chute Tilt Cable Guide
50	712-0431	Hex Flange Lock Nut, 3/8-24	106	731-1320	Upper Chute
51	712-3010	Hex Nut, 5/16-18	107	731-1379C	Adapter Chute
52	714-0145	Click Pin, .092 x 1.64	108	736-0231	Flat Washer, .344 x 1.125 x .125
53	714-0147	Internal Cotter Pin, .125 x 1.75	109	736-0463	Flat Washer, .25 x .63 x .0515
54	732-1013	Belt Guard	110	784-5594	Cable Bracket
55	736-0192	Flat Washer, .531 x .93 x .09	111	784-5604	Chute Tilt Handle
56	756-0981A	Idler Pulley, Flat 2.75 OD	112	784-5647	Chute Crank Bracket
57	736-3072	Flat Washer, .38 x .93 x .11	113	710-04071	Carriage Screw, 5/16-18 x 1.0
58	738-0145	Shoulder Screw, 3/8-16, .5 x .835,	114	684-0149	Double Idler Assembly (Incl. Refs. 61-71)

* Refer to the chart found on page 7 to determine the correct belt for your application.

Model 823



Model 823

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	05931A	Bearing Housing, 1.85 ID	32	710-0216	Hex Cap Screw, 3/8-16 x .75
2	618-0407	Auger Gear Case (Incl. Ref. 39-58)	33	741-0493A	Flange Bushing, .80 x .91
3	747-1257	Belt Keeper Rod	34	784-0396A	Skid Plate Bracket, 42"
4	684-0158	Impeller Assembly, 12"	35	784-5038B	Slide Shoe
5	684-0148	Housing Assembly	36	711-0469	Spacer, .75 x .125 x .5
6	703-2734	Housing Brace Bracket	37	784-5618	Hex Bearing Housing, 1.0
7	714-0122	Square Key, 3/16 x .75	38	784-0402	Skid Plate
8	714-0126	Hi-pro Key, 3/16 x .75	39	618-0123	RH Reducer Housing (Incl. Ref. 57, 58)
9	703-2736	Belt Cover	40	618-0124	LH Reducer Housing (Incl. Ref. 57, 58)
10	705-5269	LH Spiral Auger, 40"	41	703-2733A	Housing Brace Plate
11	705-5270	RH Spiral Auger, 40"	42	710-0642	Self Tapping Screw, 1/4-20 x .75
12	710-0157	Hex Cap Screw, 5/16-24 x .75	43	711-1395	Spiral Axle, 41.5"
13	712-0431	Flange Lock Nut, 3/8-16	44	714-0161	Hi-Pro Key, 3/16 x 5/8
14	710-0260A	Carriage Bolt, 5/16-18 x .62	45	715-0143	Spring Spirol Pin, .25 x 1.25
15	710-0276	Splined Carriage Screw, 5/16-18 x 1.0	46	717-0528	Worm Gear, 20-tooth
16	710-3251	Socket Head Cap Screw, 5/16-18 x 1.75	47	717-3320	Worm Shaft
17	710-0604A	Self Tapping Screw, 5/16-18 x .625	48	718-0513	Thrust Collar
18	710-0890A	Shear Bolt, 5/16-18 x 1.5	49	721-0325	Grease Plug
19	712-0429	Hex Lock Nut, 5/16-18	50	721-0327	Grease Seal
20	712-3010	Hex Nut, 5/16-18	51	736-0351	Flat Washer, .76 x 1.5 x .030
21	718-0691	Coupling	52	736-0369	Flat Washer, .508 x 1.0 x .020
22	712-3057	Hex Nut, 5/16-24	53	736-0617	Thrust Washer, .75 x 1.25 x .0615
23	715-0114	Spirol Pin, 1/4 x 1-1/2	54	741-0150	Thrust Bearing, .75 x 1.25 x .078
24	710-0514	Hex Cap Screw, 3/8-16 x 1.0	55	741-0700	Flange Bearing, .75 x 1.0 x .59
25	717-1714A	Right Angle Drive	56	748-0108	Flange Bearing, .503 x .75
26	712-3004A	Flange Lock Nut, 5/16-18	57	741-0661	Flange Bearing, .754 x 1.0 x .925
27	736-0188	Flat Washer, .76 x 1.49 x .06	58	721-0179	Grease Seal
28	736-0231	Flat Washer, .344 x 1.125 x .12	59	754-0125A	Lower V-belt
29	736-0242	Bell Washer, .340 x .872	60	756-1181A	Drive Pulley, 7"
30	741-0245	Hex Flange Bearing, .75 ID	61	783-1014A	Drive Mounting Bracket
31	741-0309	Flange Ball Bearing, .75 x 1.85			

IMPORTANT: For a proper working machine, use Factory Approved Parts.

V-belts are especially designed to engage and disengage safely. A substitute (non-OEM) V-belt can be dangerous by not disengaging completely.

MANUFACTURER'S LIMITED WARRANTY FOR:



The limited warranty set forth below is given by MTD LLC with respect to new merchandise purchased and used in the United States, its possessions and territories.

MTD LLC warrants this product against defects for a period of two (2) years commencing on the date of original purchase and will, at its option, repair or replace, free of charge, any part found to be defective in materials or workmanship. This limited warranty shall only apply if this product has been operated and maintained in accordance with the Operator's Manual furnished with the product, and has not been subject to misuse, abuse, commercial use, neglect, accident, improper maintenance, alteration, vandalism, theft, fire, water, or damage because of other peril or natural disaster. Damage resulting from the installation or use of any accessory or attachment not approved by MTD LLC for use with the product(s) covered by this manual will void your warranty as to any resulting damage.

Normal wear parts or components thereof are subject to separate terms as follows: All normal wear parts or component failures will be covered on the product for a period of 90 days regardless of cause. After 90 days, but within the two year period, normal wear part failures will be covered ONLY IF caused by defects in materials or workmanship of OTHER component parts. Normal wear parts and components include, but are not limited to: batteries, belts, blades, blade adapters, grass bags, rider deck wheels, seats, snow thrower skid shoes, shave plates, auger spiral rubber, and tires.

HOW TO OBTAIN SERVICE: Warranty service is available, WITH PROOF OF PURCHASE, through your local authorized service dealer. To locate the dealer in your area, check your Yellow Pages, or contact MTD LLC at P.O. Box 361131, Cleveland, Ohio 44136-0019, or call 1-800-800-7310 or 1-330-220-4683 or log on to our Web site at www.mtdproducts.com.

This limited warranty does not provide coverage in the following cases:

- a. The engine or component parts thereof. These items carry a separate manufacturer's warranty. Refer to applicable manufacturer's warranty for terms and conditions.
- b. Log splitter pumps, valves, and cylinders have a separate one year warranty.
- c. Routine maintenance items such as lubricants, filters, blade sharpening, tune-ups, brake adjustments, clutch adjustments, deck adjustments, and normal deterioration of the exterior finish due to use or exposure.

- d. MTD LLC does not extend any warranty for products sold or exported outside of the United States, its possessions and territories, except those sold through MTD LLC's authorized channels of export distribution.
- e. Parts that are not genuine MTD parts are not covered by this warranty.
- f. Service completed by someone other than an authorized service dealer is not covered by this warranty.
- g. Transportation charges and service calls are not covered.

No implied warranty, including any implied warranty of merchantability of fitness for a particular purpose, applies after the applicable period of express written warranty above as to the parts as identified. No other express warranty, whether written or oral, except as mentioned above, given by any person or entity, including a dealer or retailer, with respect to any product, shall bind MTD LLC. During the period of the warranty, the exclusive remedy is repair or replacement of the product as set forth above.

The provisions as set forth in this warranty provide the sole and exclusive remedy arising from the sale. MTD LLC shall not be liable for incidental or consequential loss or damage including, without limitation, expenses incurred for substitute or replacement lawn care services or for rental expenses to temporarily replace a warranted product.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

In no event shall recovery of any kind be greater than the amount of the purchase price of the product sold. **Alteration of safety features of the product shall void this warranty.** You assume the risk and liability for loss, damage, or injury to you and your property and/or to others and their property arising out of the misuse or inability to use the product.

This limited warranty shall not extend to anyone other than the original purchaser or to the person for whom it was purchased as a gift.

HOW STATE LAW RELATES TO THIS WARRANTY: This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.