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Safe Operation Practices • Contents of Carton • Set-Up & Assembly • Installation & Removal  
Adjustments & Operation • Maintenance Warranty

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# *Cub Cadet*<sup>®</sup>

## OPERATOR'S MANUAL

**42" Snow Thrower Attachment — Model 190-341-100**

** WARNING**

**READ AND FOLLOW ALL SAFETY RULES AND INSTRUCTIONS IN THIS MANUAL  
BEFORE ATTEMPTING TO OPERATE THIS MACHINE.  
FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY.**

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CUB CADET LLC, P.O. BOX 361131 CLEVELAND, OHIO 44136-0019

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## Thank You

Thank you for purchasing a Cub Cadet snow thrower attachment. It was carefully engineered to provide excellent performance when properly operated and maintained.

Please read this entire manual prior to operating the equipment. It instructs you how to safely and easily set up, operate and maintain your machine. Please be sure that you, and any other persons who will operate the machine, carefully follow the recommended safety practices at all times. Failure to do so could result in personal injury or property damage.

All information in this manual is relative to the most recent product information available at the time of printing. Review this manual frequently to familiarize yourself with the machine, its features and operation. Please be aware that this Operator's Manual may cover a range of product specifications for various models. Characteristics and features discussed and/or illustrated in this manual may not be applicable to all models. We reserve the right to change product specifications, designs and equipment without notice and without incurring obligation.

If you have any problems or questions concerning the machine, phone your local Cub Cadet dealer or contact us directly. Cub Cadet's Customer Support telephone numbers, website address and mailing address can be found on this page. We want to ensure your complete satisfaction at all times.

**IMPORTANT:** This snow thrower attachment, for Cub Cadet series 2000/2500 tractors, requires the 190-307 Weight Bracket Kit and weights.

Throughout this manual, all references to *right* and *left* side of the machine are observed from the operating position.

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## Record Product Information

Before setting up and operating your new equipment, please locate the model plate on the equipment and record the information in the provided area to the right. This information will be necessary, should you seek technical support via our web site or with your local Cub Cadet dealer.

### MODEL NUMBER

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### SERIAL NUMBER

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## Customer Support

If you have difficulty assembling this product or have any questions regarding the controls, operation, or maintenance of this machine, you can seek help from the experts. Choose from the options below:

- ◇ Visit us on the web at [www.cubcadet.com](http://www.cubcadet.com)
- ◇ Locate your nearest Cub Cadet Dealer at (877) 282-8684
- ◇ Write to Cub Cadet LLC • P.O. Box 361131 • Cleveland, OH • 44136-0019

# Important Safe Operation Practices

# 2



**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!**

## CALIFORNIA PROPOSITION 65



**WARNING!** Engine Exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to State of California to cause cancer and birth defects or other reproductive harm.



**DANGER:** This machine was built to be operated according to the safe operation practices 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 fingers, hands, toes and feet and throwing foreign 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, 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.

### 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.
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. Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground, away from your vehicle, before filling.
  - c. When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
  - d. Keep the nozzle in contact with the rim of the fuel tank or container opening at all times, until refueling is complete. Do not use a nozzle lock-open device.
  - e. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
  - f. Never fuel machine indoors.
  - g. Never remove gas cap or add fuel while the engine is hot or running.
  - h. Allow engine to cool at least two minutes before refueling.
  - i. Never over fill fuel tank. Fill tank to no more than ½ inch below bottom of filler neck to provide space for fuel expansion.
  - j. Replace gasoline cap and tighten securely.
  - k. If gasoline is spilled, wipe it off the engine and equipment. Move machine to another area. Wait 5 minutes before starting the engine.
  - l. 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.).
  - m. Allow machine to cool at least 5 minutes before storing.
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. Do not clear snow across the face of slopes; go up and down. Exercise extreme caution when operating on slopes. Do not attempt to clear steep slopes.
9. Plan your snow throwing pattern to avoid discharge towards windows, walls, cars etc. To avoid property damage or personal injury caused by a ricochet.
10. Never direct discharge at children, bystanders and pets or allow anyone in front of the machine.
11. Do not overload machine capacity by attempting to clear snow at too fast of a rate.
12. Never operate this machine without good visibility or light.
13. Disengage power to the auger/impeller when transporting or not in use.
14. Never operate machine at high transport speeds on slippery surfaces. Look down and behind and use care when in reverse.
15. 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.
16. After striking a foreign object, stop the engine (motor), remove the wire from the spark plug, thoroughly inspect the snow thrower for any damage, and repair the damage before restarting and operating the snow thrower.
17. 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.
18. Do not carry passengers.
19. Use only attachments and accessories approved by the manufacturer (e.g. wheel weights, tire chains, cabs etc.).
20. If situations occur which are not covered in this manual, use care and good judgment. Contact your dealer or telephone 1-800-800-7310 for assistance and the name of your nearest servicing dealer.

## 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. When cleaning, repairing or inspecting the snow thrower, make certain the collector/impeller and all moving parts have stopped. Disconnect the spark plug wire and keep the wire away from the plug to prevent someone from accidentally starting the machine. Do not run the engine indoors, except when starting the engine and for transporting the snow thrower in or out of the building. Open the outside doors; exhaust fumes are dangerous.

## Clearing A Clogged Discharge Chute

Hand contact with the rotating impeller inside the discharge chute is the most common cause of injury associated with snow throwers. Never use your hand to clean out the discharge chute.

To clear the chute:

1. SHUT THE ENGINE OFF!
2. Wait 10 seconds to be sure the impeller blades have stopped rotating.
3. Always use a clean-out tool, not your hands



## 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.

## Safety Symbols

The safety symbols below may appear on this product. Read, understand, and follow all instructions on the machine before attempting to assemble and operate.

Symbol	Description
	<b>WARNING— ROTATING BLADES</b> Keep hands out of inlet and discharge openings while machine is running. There are rotating blades inside
	<b>WARNING— ROTATING AUGER</b> Do not put hands or feet near rotating parts, in the auger/impeller housing or chute assembly. Contact with the rotating parts can amputate hands and feet.



**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.

**SAVE THESE INSTRUCTIONS!**

Select a firm level surface that is large enough to accommodate both the snow thrower assembly and the tractor. Remove the upper crating material, and remove the hardware pack from the shipping crate. Carefully roll the snow thrower assembly rearward so that it rests on its bottom; then carefully “walk” the snow thrower off the shipping pallet. When repositioning the snow thrower, use care not to pinch or bind the chute crank support tube and/or lift handle (B and C, Figure 1). Cut the tie strap and remove the packaging material from the chute crank support tube assembly (B) and position to the left side of the snow thrower assembly. Cut the tie strap and remove the packaging material from the lift handle assembly (C) and position to the right side of the snow thrower.

Refer to Figures 3-1 and 3-2 to confirm that all parts are present and to acquaint yourself with the part descriptions. Throughout this manual’s instructions, the parts shown in Figures 3-1 and 3-2 will be identified by name, followed by either their callout letter or part number in parenthesis to aid in assembly and installation.

**NOTE:** Because different PTO clutch assemblies are used on the various Series 2000 tractor models, two PTO drive belts are provided with the 341 Snow Thrower. If your tractor has a single cylinder engine, use the 754-0441 (shorter) V-belt. If your tractor has a twin cylinder engine, use the 754-3075 (longer) V-belt.

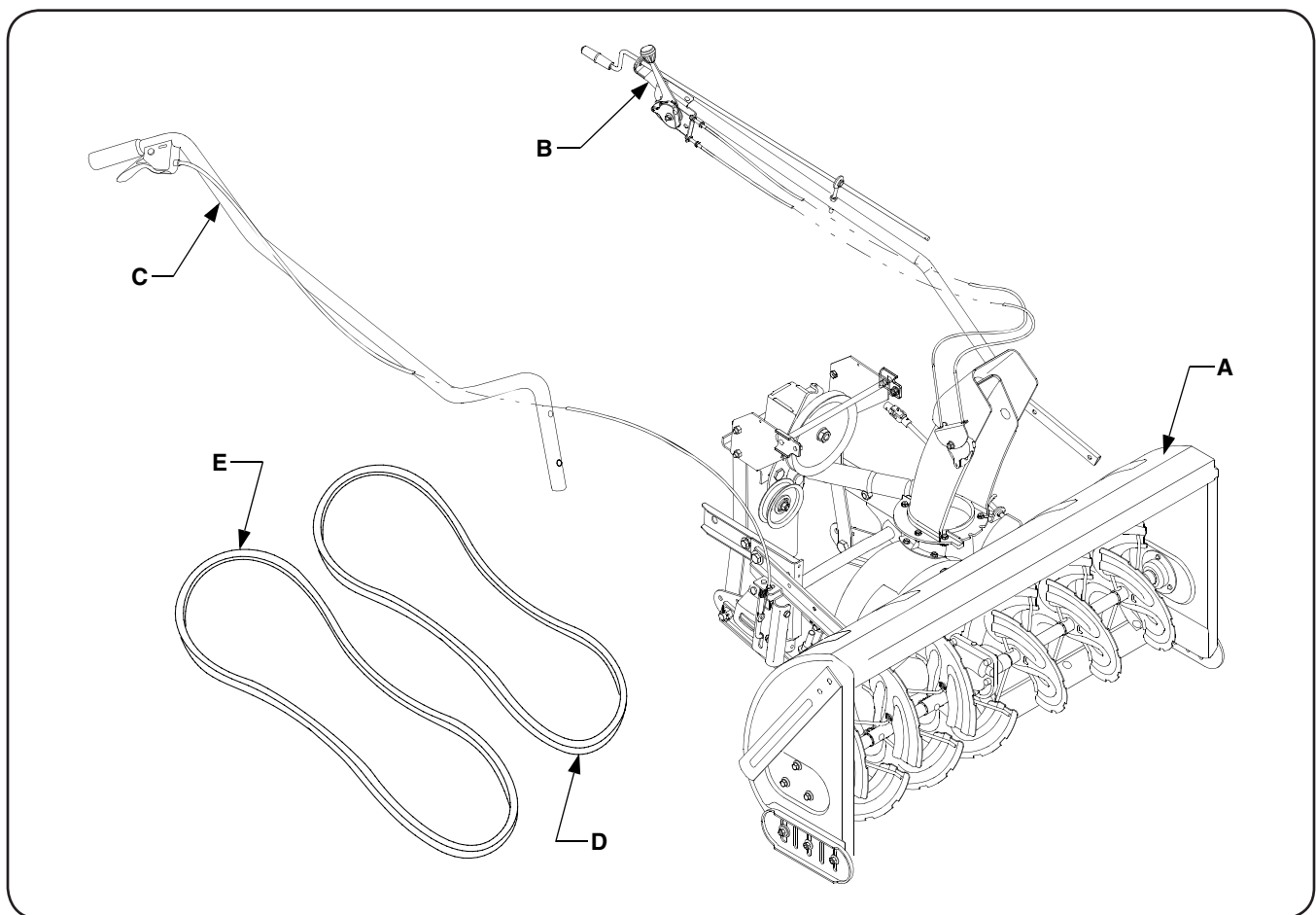


Figure 3-1

REF.	PART #	DESCRIPTION	QUANTITY
A	N/A	Snow Thrower / Discharge Chute Assembly	1
B	N/A	Chute Crank / Tilt and Support Assembly	1
C	N/A	Lift Handle / Latch Release Cable Assembly	1
D	754-0441	PTO Belt, Type A; 76.1 Lg- For Single Cylinder Engines	1
E	754-3075	PTO Belt, Type B; 78.3 Lg - For Twin Cylinder Engines	1

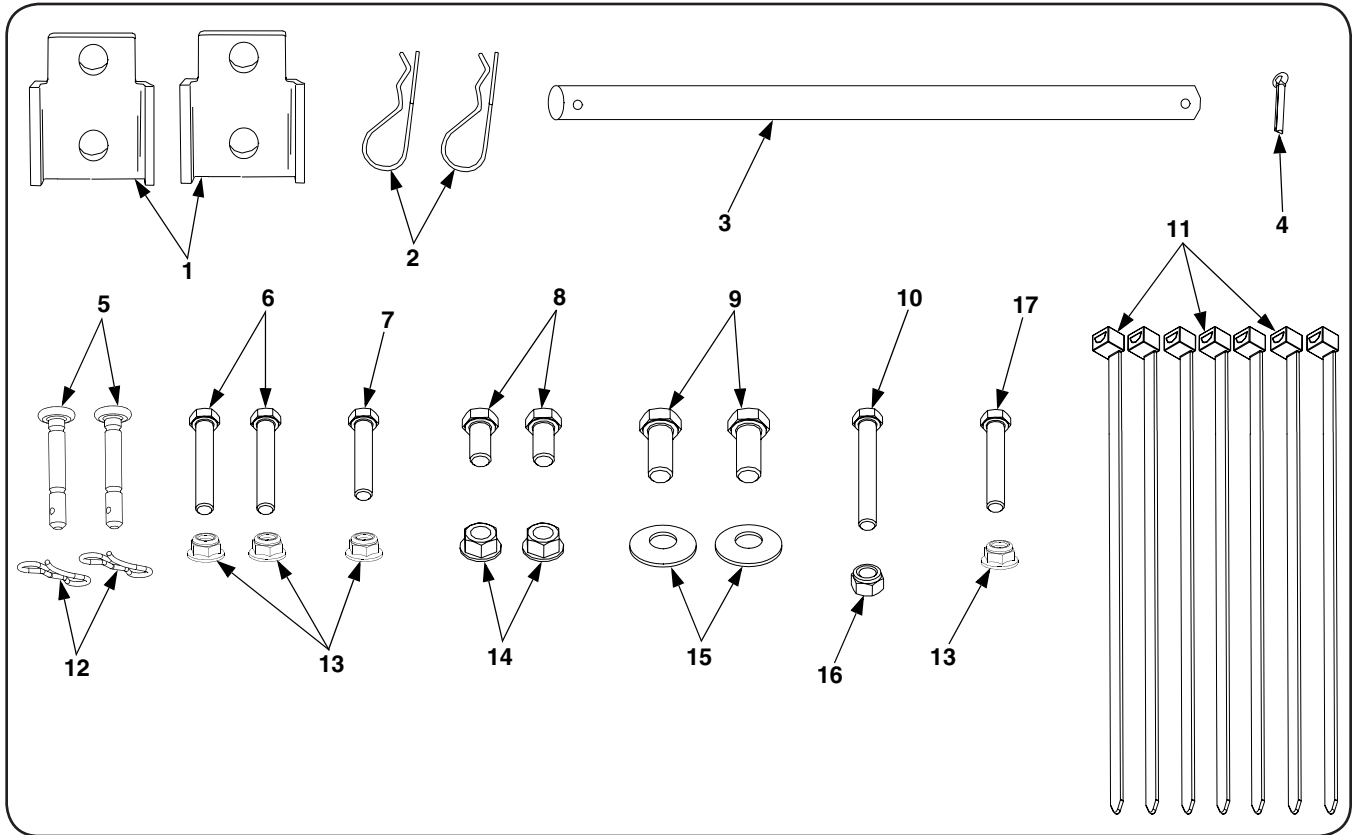


Figure 3-2

REF.	PART #	DESCRIPTION	QUANTITY
1	703-2737	Frame Mounting Bracket	2
2	714-3020	Internal Cotter Pin	2
3	711-3401	Rod, .5 Dia x 12.5 Lg.	1
4	714-0507	Cotter Pin, 3/32 x 3/4 Lg	1
5	738-04124	Pin, Shear, 1/4 x 1-1/2 Lg (2 Extra)	2
6	710-3180	Hex Cap Screw, 5/16-18 x 1.75 GR5	2
7	710-0528	Hex Cap Screw, 5/16-18 x 1.25 GR5	1
8	710-0216	Hex Cap Screw, 3/8-16 x .75 Lg GR5	2
9	710-0505	Hex Cap Screw, 7/16-14 x 1.0 GR5	2
10	710-0772	Hex Cap Screw, 5/16-24 x 2.0 GR5	1
11	725-0157	Cable Tie	7
12	714-04040	Pin, Bow-Tie Cotter (2 Extra)	2
13	712-04063	Hex Flange Lock Nut, 5/16-18	4
14	712-0431	Hex Flange Lock Nut, 3/8-16	2
15	736-0407	Bell Washer, .45 x 1.0 x .062	2
16	712-0411	Hex Insert Lock Nut, 5/16-24	1
17	710-0805	Hex Cap Screw, 5/16-18 x 1.5 GR5	1

## Snow Thrower Assembly Preparation



**WARNING!** Before beginning preparation of the snow thrower assembly, select a firm and level surface that is large enough to accommodate both the snow thrower attachment and tractor. Engage the tractor parking brake.

1. Cut the cable tie(s) securing the drive shaft to the snow thrower sub-frame and carefully unfold the sub-frame arms. See Figure 4-1.

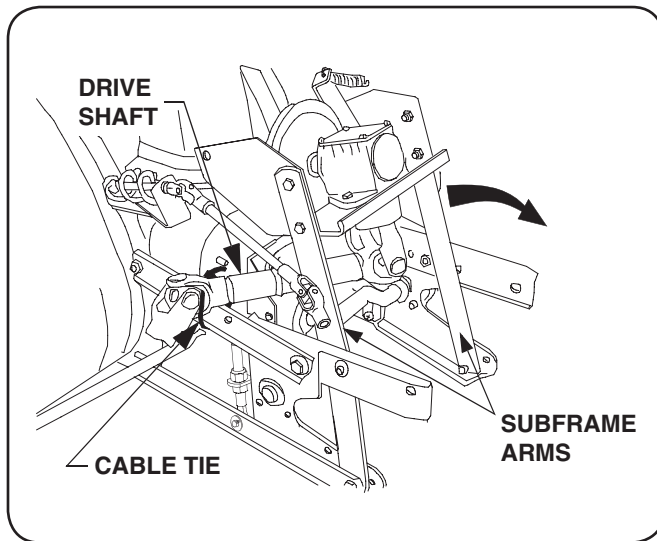


Figure 4-1

2. Slide the front end of the drive shaft onto the input shaft of the sprocket box assembly on the rear of the snow thrower. Align the holes and secure with hex cap screw (10, Fig.3-2) and hex insert lock nut (16, Fig.3-2). See Figure 4-2.

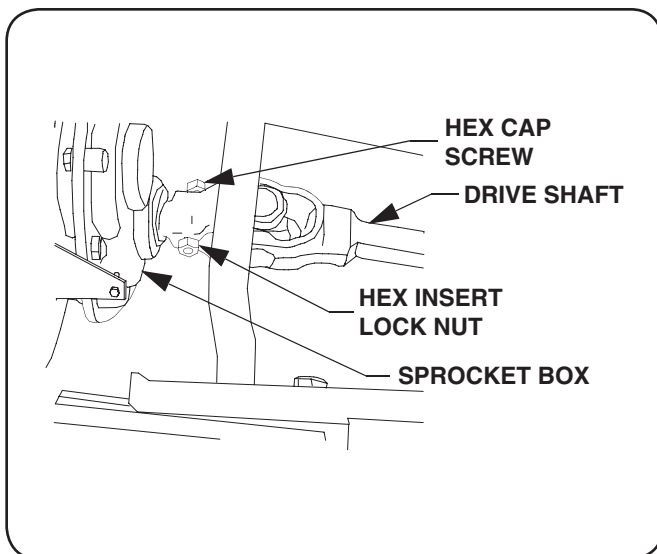


Figure 4-2

3. Install the chute crank support tube (B, Fig.3-1) onto the LH upper link of the snow thrower (A, Fig.1) subframe using the hex cap screw (7, Fig.3-2), hex cap screw (17, Fig.3-2) and two hex flange lock nuts (13, Fig.3-2). Note: the longer hex cap screw (17) must be installed in the rearward hole. Refer to Figure 4-3.

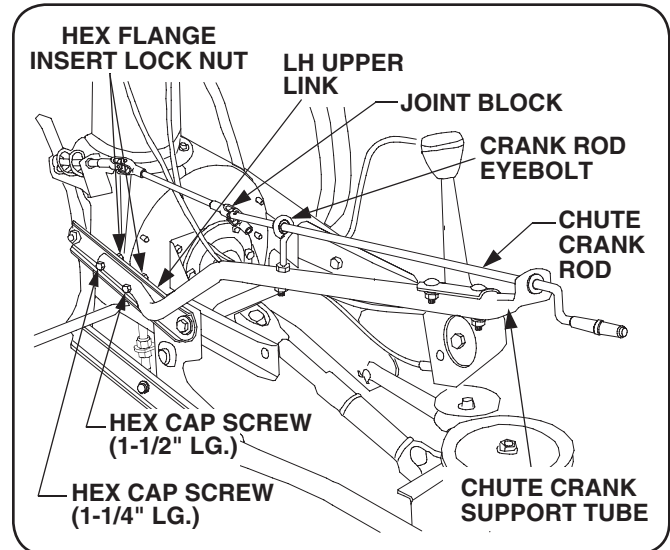


Figure 4-3

4. After making sure the chute crank rod is routed through the eyebolt, insert the rod into the sleeve of the joint block on the chute crank assembly. Align the holes and secure the rod with the cotter pin (4, Fig.3-2). See Figures 4-3 and 4-4.

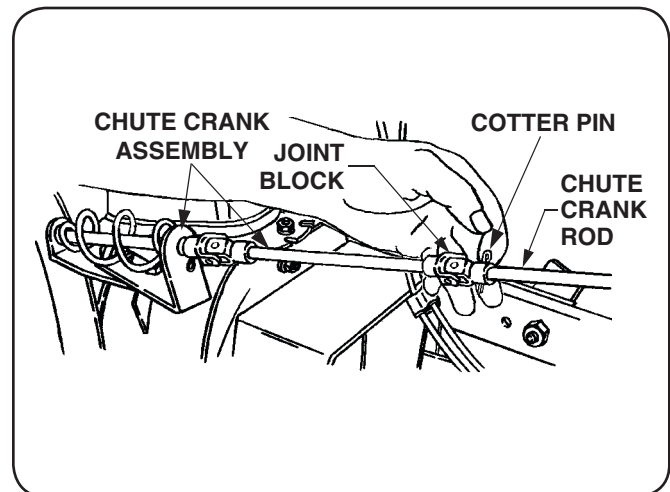


Figure 4-4

5. Route the tilt handle cables along the inside of the upper chute crank support tube and secure to the support tube with two cable ties (11, Fig.3-2). See Figure 4-5. Cut excess length from the cable ties.



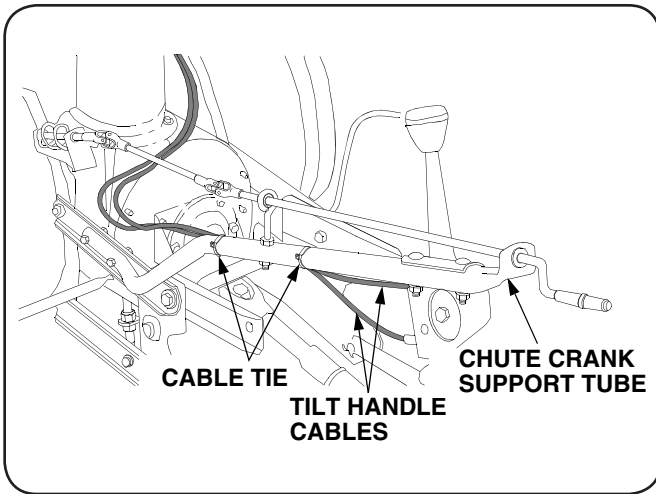


Figure 4-5

- Route the tilt handle cables along the bend in the lower end of the chute crank support tube and secure to the support tube with a cable tie (11, Fig. 3-2). See Figure 4-6.

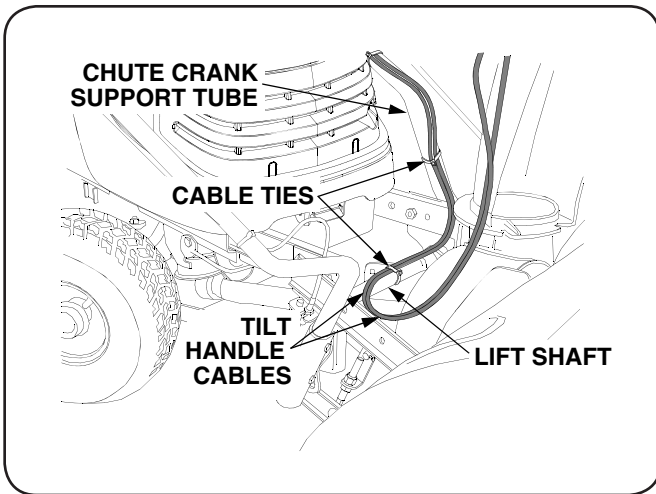


Figure 4-6

- Route the tilt handle cables across the top of the snow thrower lift shaft toward the right side of the snow thrower. Loosely fasten the cables to the lift shaft with a cable tie (11, Fig. 3-2). Do not fully tighten the cable tie. Refer to Figure 4-6.
- Insert the lower end of the lift handle assembly (C, Fig.1) into the lift bracket located on the right side of the snow thrower subframe. See Figure 4-7.

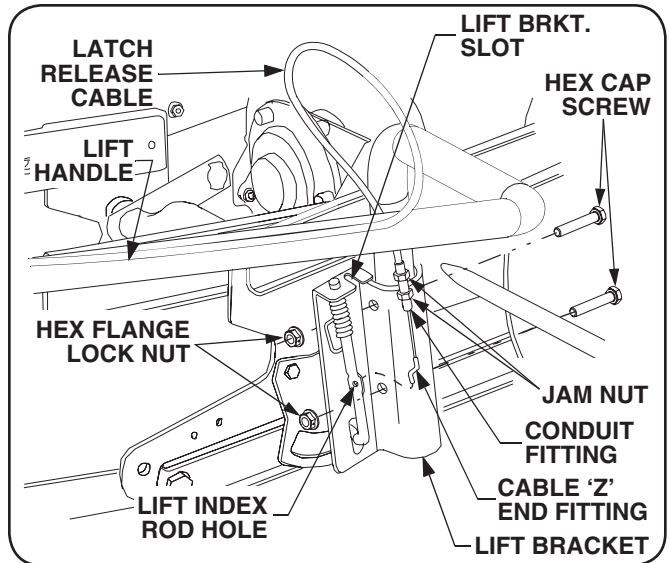


Figure 4-7

**NOTE:** The latch release cable may, or may not, have been connected to the lift index rod at the factory. If already connected, skip to Step 12. If not connected, perform the following steps 9-11 to connect the cable.

- Insert the bottom of the cable 'Z' end fitting through the hole in the lift index rod. Refer to Figure 4-6.
- If necessary, turn the jam nuts on the conduit fitting to create a space between the nuts. With a jam nut positioned both above and below the lift bracket, slide the conduit fitting fully into the slot of the lift bracket. Refer to Fig. 4-6.
- Temporarily tighten the jam nuts against the upper and lower surfaces of the lift bracket.
- Align the holes of the lift handle and lift bracket, and secure with the two hex cap screws (6, Fig.2) and hex flange lock nuts (13, Fig.2). Refer to Figure 4-6.
- Refer to Lift Latch Adjustment on Page 14 for instructions to adjust the cable.
- Route the latch release cable along the lift handle and secure the cable to the handle using two tie straps (11, Fig.3-2) as shown in Figure 4-8. Cut the excess from the tie strap ends.

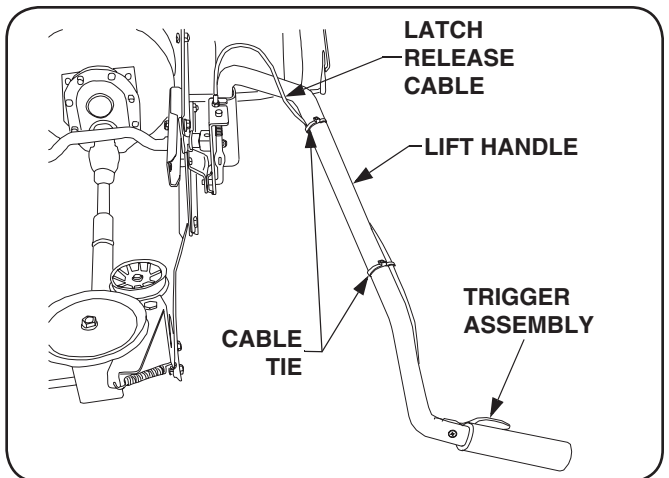


Figure 4-8

## Tractor Preparation

This section describes the steps necessary to prepare the appropriate tractor models for installation of the snow thrower attachment. Some instructions apply only to specific production model years. The production models referred to will be noted in the heading for those instructions. Skip all instructions that do not apply to your installation.



**WARNING!** If the tractor has been recently operated, the muffler, exhaust pipe, and surrounding areas will be HOT. Allow the tractor to cool before beginning preparation.

**NOTE:** The mower deck and its front lift rod, or any other front mounted attachment must be removed from the tractor.

1. Remove the front bumper from the tractor frame by removing the hex tap screws securing the bumper in each side of the tractor frame. Slide the bumper out of frame. Store screws and bumper for later reassembly when the snow thrower is removed. Refer to Figure 4-9.

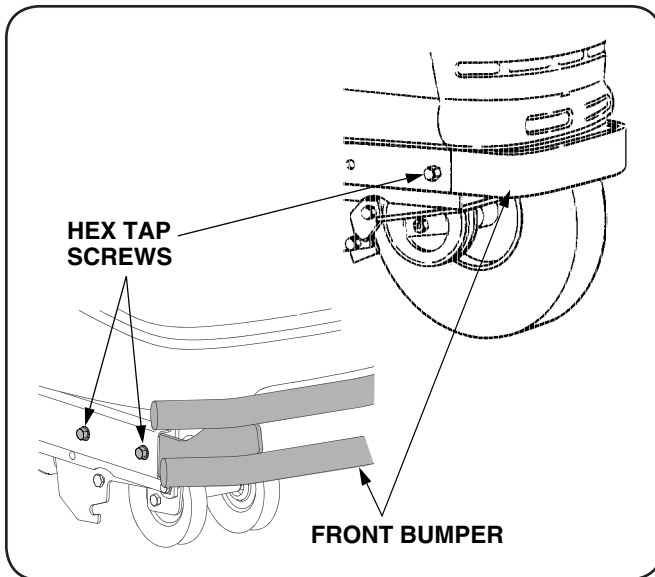


Figure 4-9

2. Check for the presence of red reflector labels on the rear fender. If none are present, install the two reflector labels provided with the snow thrower attachment. Thoroughly clean the rear fender. Remove the backing from the adhesive side of one reflector label. Position the label horizontally and carefully affix to one side of the rear fender of the tractor. Install the other reflector label to the other side of the fender.

3. Install the frame mounting bracket (1, Fig.3-2) onto each side of the tractor frame.
  - a. **Series 2000 & 2500 Tractors Before Mfg. Date J315.** Looking beneath the front of both running boards, locate the forward most open hole in each side of the tractor frame. Refer to Figure 4-10.

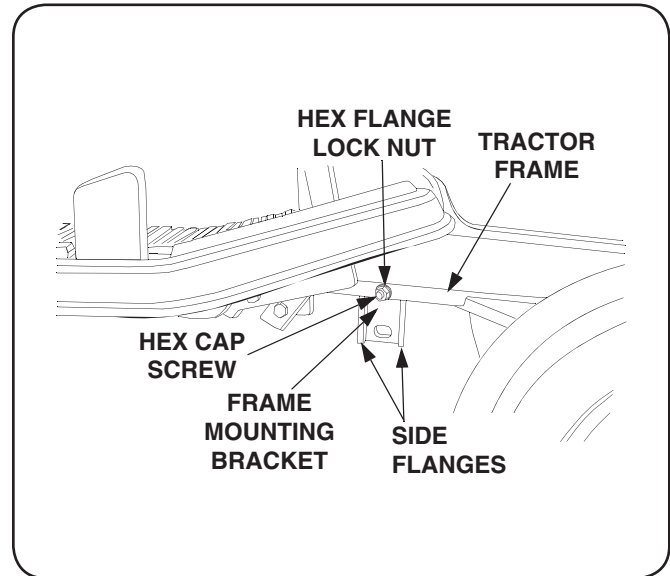


Figure 4-10

- b. **Series 2500 Tractors Mfg. Date K015 and After.** Looking beneath the front of both running boards, locate the forward most open hole in each side of the tractor frame. See Figure 4-11.

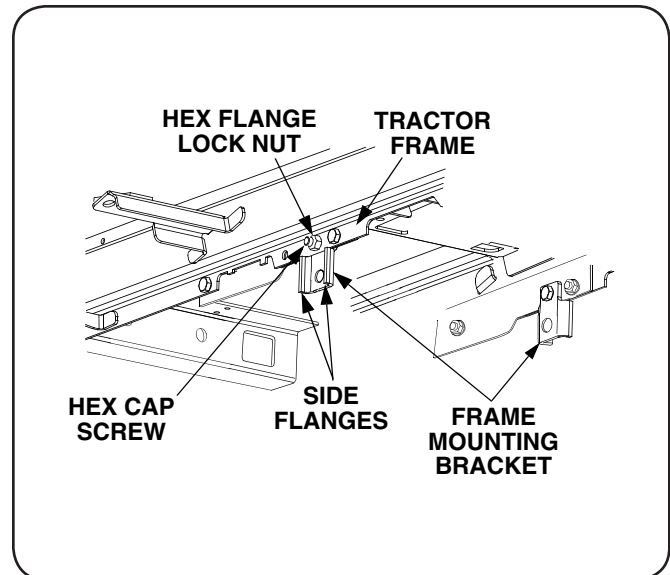


Figure 4-11

- c. **Series 2500 Tractors, Mfg. Date B016 and After, with 44 inch or larger mowing deck.** A deck up-stop bracket is installed on the right side of the tractor frame, using the hole needed to install the frame mounting bracket. From beneath the front of the RH running board, remove the up-stop bracket by removing the two hex screws and nuts. Reinstall the front hex screw through the frame and steering support bracket and secure with the hex nut. Store the up-stop bracket and fasteners for reinstallation when removing the snow thrower and installing the mower deck.
- d. Position the mounting brackets with the side flanges facing outward from the tractor frame. Secure with the two hex cap screws (8, Fig.3-2) and hex flange lock nuts (14, Fig.3-2). Insert the cap screws from inside the tractor frame.

## Snow Thrower Installation



**WARNING!** Before installing the snow thrower assembly onto the tractor, ensure the PTO switch and ignition switch are in the OFF position, the parking brake is locked, and that the exhaust system and surrounding areas have adequately cooled.

**NOTE:** To ease insertion into the tractor frame channels, apply a light coating of grease to the channel brackets of the snow thrower hitch assembly ( Refer to Figure 5-3).

1. Position the snow thrower assembly directly in front of the tractor with the subframe assembly extending rearward.

**NOTE:** Because of lower ground clearance on tractors equipped with 15" front tires and 20" rear tires, the gearbox mounting bracket, as assembled on the snow thrower subframe, may not clear the front axle of the tractor. Note that steps 2, 3 and 6 apply only to these tractors.

2. Units with 15" front tires ONLY. Remove the front hex flange lock nuts and cap screws securing the gearbox mounting bracket to the subframe arms. Loosen the rear fasteners. See Figure 5-1.

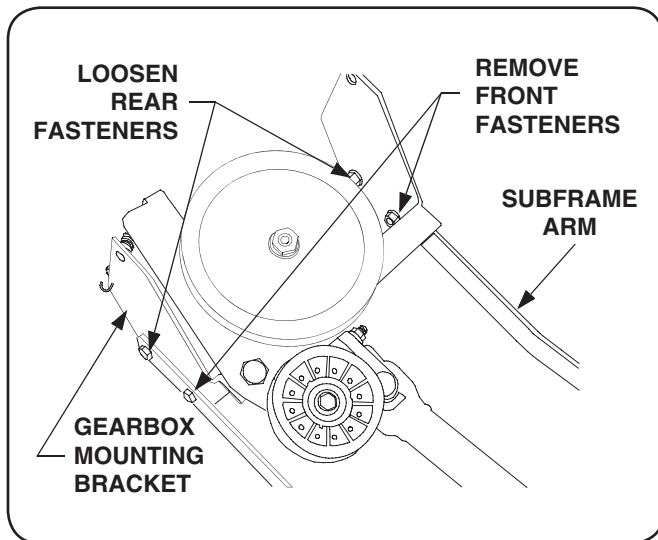


Figure 5-1

3. Units with 15" front tires ONLY. Using care to avoid separating the rear half of the drive shaft from the front half, tilt the gearbox mounting bracket rearward. See Figure 5-2.

**NOTE:** Turning the tractor's front tires fully to the left or right will slightly raise the front axle of the tractor and provide more ground clearance.

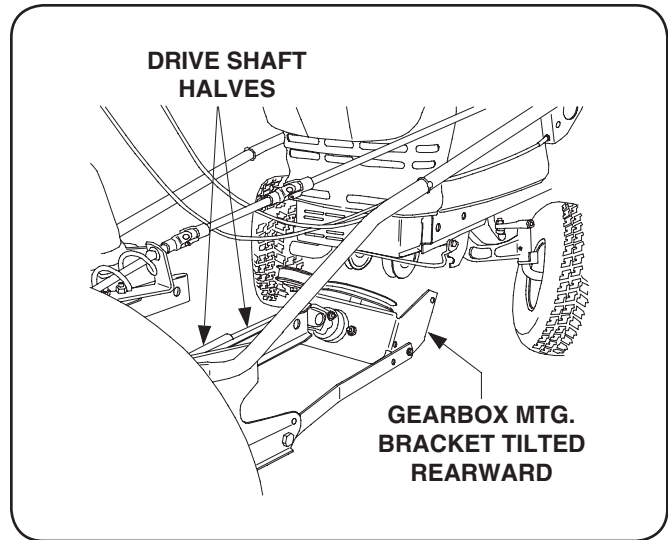


Figure 5-2

4. Slide the snow thrower assembly rearward until the channel brackets of the hitch assembly engage the frame channels of the tractor. See Figure 5-3.

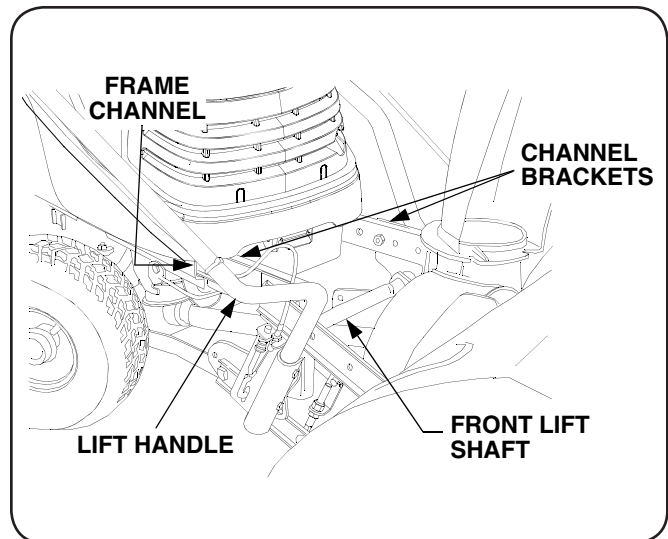


Figure 5-3

- While manipulating the lift handle to keep the channel brackets parallel to the tractor frame, lift upward on the front lift shaft and slide the snow thrower assembly rearward until the channel brackets are fully inserted into the frame channels. Secure the assembly to both sides of the frame using the hex cap screws (9, Fig. 3-2) and bell washers (15, Fig. 3-2). See Figure 5-4.

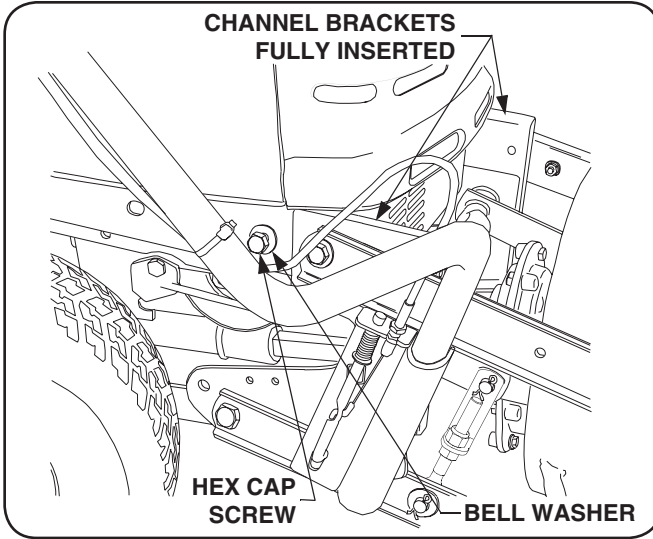


Figure 5-4

- Tractors with 15" front tires ONLY.** Align the gearbox mounting bracket with the subframe arms and reinstall the front hex cap screws and flange lock nuts. Tighten the rear fasteners. See Figure 5-5.

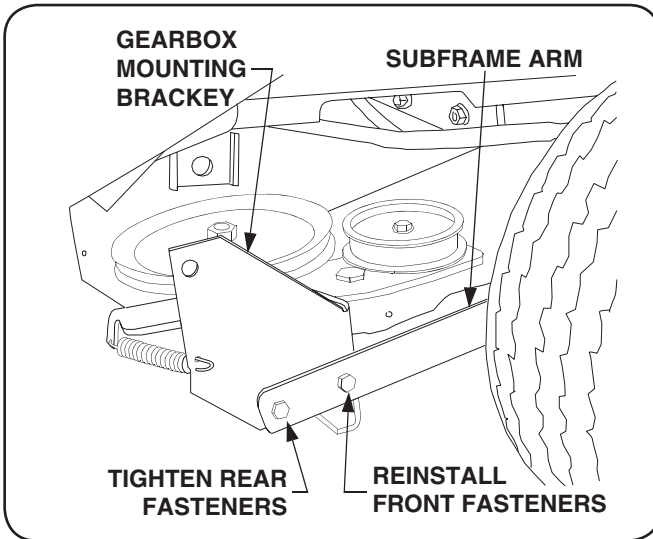


Figure 5-5

**IMPORTANT: Series 2500 Tractors Mfg. Date K015 and After.**  
To open the tractor hood, the snow thrower must be lowered to the ground and the discharge chute rotated to the straight forward position.

- Raise the tractor hood. Refer to the tractor Operator's Manual.

**NOTE:** Use the 754-0441 (D, Fig. 3-1) PTO belt for **single cylinder engines ONLY**. Use the 754-3075 (E, Fig. 3-1) belt for **twin cylinder engines ONLY**.

- Install the appropriate PTO belt (D or E) on the PTO clutch pulley on the front of the engine by passing the belt upward inside the front of the tractor frame. Make certain the narrow side of the PTO belt engages the groove of the clutch pulley. See Figure 5-6.

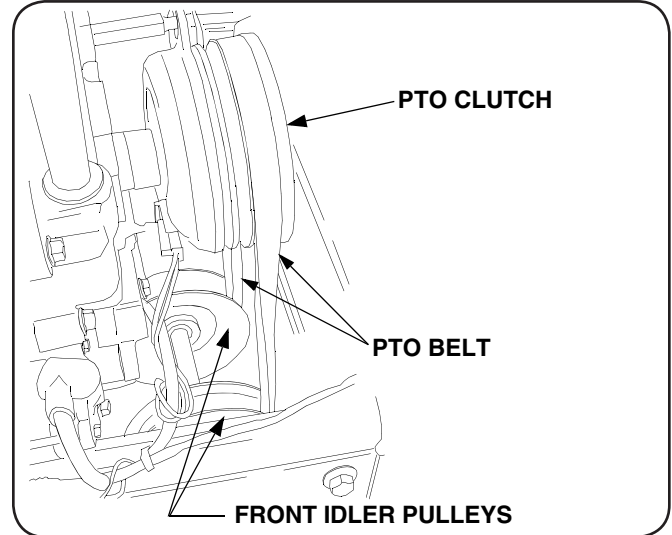


Figure 5-6

- Twist the PTO belt 1/4 turn inward to engage the narrow sides of the belt in the grooves of the tractor's two front idler pulleys. Refer to Figure 5-6.
- Routing the PTO belt rearward under the tractor frame, install the narrow side of the belt in the V-pulley on the snow thrower gearbox. See Figure 5-7. Make certain there is no more than a 1/4 inward twist in both runs of the belt.

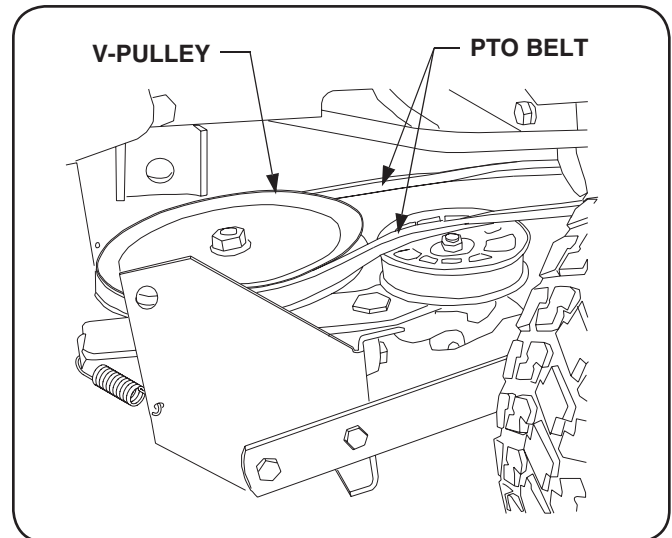


Figure 5-7

11. Install an internal cotter pin (2, Fig. 3-2) into one end of the rod (3, Fig. 3-2). Refer to Figure 5-8.
12. Lift the gearbox mounting bracket /sub-frame assembly up between the frame mounting brackets (1, Fig. 3-2) installed earlier on the tractor. Align the holes and slide the rod (3, Fig. 3-2) through the frame mounting brackets and the gearbox mounting bracket. Install the other internal cotter pin (2, Fig. 3-2) into the other end of the rod. See Figure 5-8.

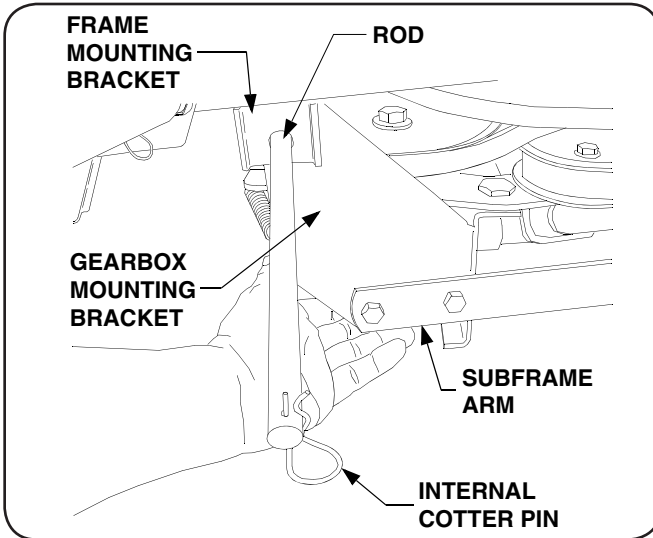


Figure 5-8

13. From the right side of the tractor, press the rearward end of the idler bracket inward to allow the flat backside of the PTO belt in the flat idler pulley. See Figure 5-9.

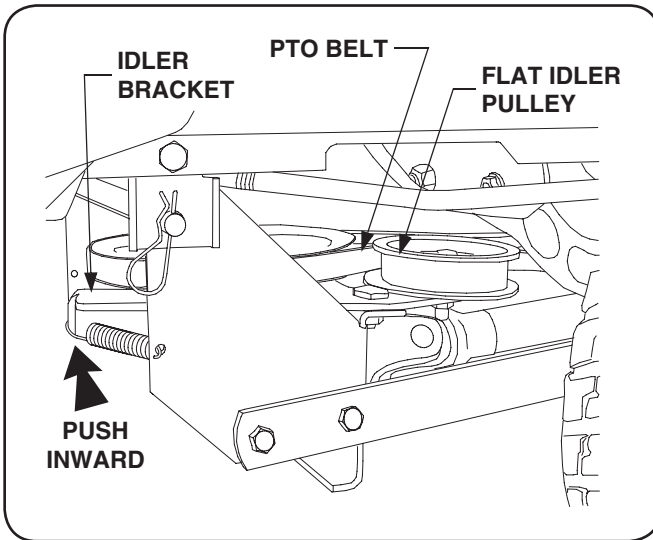


Figure 5-9

## Snow Thrower Removal

1. Drive the tractor with snow thrower assembly to a firm and level surface near the storage location. Disengage the PTO, place the controls in neutral, and engage the parking brake.



**WARNING!** The exhaust tube, muffler, and surrounding areas are HOT. Allow the tractor to cool before beginning removal of the snow thrower.

2. Grasp the lift handle (C) and squeeze the latch release trigger to lower the snow thrower to the ground (Refer to Figure 6-5).
3. Press inward on the rear of the idler bracket to disengage the PTO belt from the flat idler pulley (Refer to Figure 5-9).
4. Remove the internal cotter pin from one end of the rod (3, Fig. 3-2). Support the gearbox mounting bracket and withdraw the rod from the frame mounting brackets (Refer to Figure 5-8). Lower the subframe to the ground.
5. Remove the PTO belt from the rear V-pulley on the snow thrower gearbox (Refer to Figure 5-7)

### **IMPORTANT: Series 2500 Tractors Mfg. Date K015 and After.**

To open the tractor hood, the snow thrower must be lowered to the ground and the discharge chute rotated to the straight forward position.

6. Remove the PTO belt from the PTO clutch pulley and pass the belt downward through the bottom of the tractor frame to remove the belt from the tractor (Refer to Figure 5-6).
7. Remove the hex cap screws and bell washers that secure the snow thrower channel brackets in both of the tractor frame channels (Refer to Figure 5-4).
8. Units with 15" front tires ONLY. Remove the front hex flange lock nuts and cap screws securing the gearbox mounting bracket to the subframe arms. Loosen the rear fasteners (Refer to Figure 5-1).
9. Pull the snow thrower assembly forward to disengage the channel brackets from the tractor frame channels (Refer to Figure 5-3).

**NOTE:** For off-season storage, keep all removed parts and fasteners with the snow thrower to avoid their loss.

## Adjustments



**WARNING!** If the snow thrower is to be used on gravel surfaces, use extreme caution to avoid picking up gravel with the shave plate or auger. Loose gravel can damage the auger or housing, and could be thrown at high speed by the impeller — causing possible injury to bystanders or damage to surrounding objects.

### Skid Shoe Adjustment

The skid shoes are mounted on each side of the auger housing. They determine the distance the shave plate is raised above the plowing surface. The shave plate should be high for a gravel driveway or other uneven surfaces and low for paved surfaces. Adjust the skid shoes as follows:

- Raise the snow thrower assembly slightly off the ground and place a spacer under each end of the shave plate.
- Loosen the hex nuts and bell washers securing the skid shoes to the housing. Refer to Figure 6-1.
- Move the skid shoes up or down to the desired position and securely tighten the hex nuts. Adjust both skid shoes to the same height.

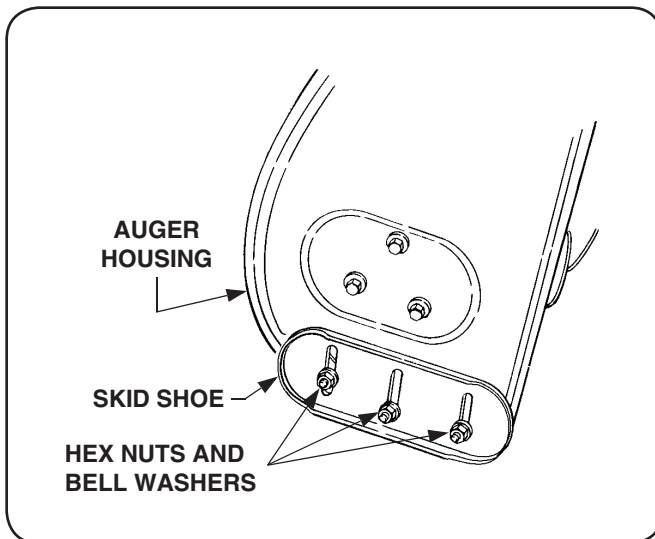


Figure 6-1

### Drift Cutters

Drift cutters on both sides of the auger housing can be adjusted to the up position for a higher cut. Refer to Figure 6-2 and proceed as follows:

- Remove each drift cutter by removing the two hex insert lock nuts and carriage bolts.

- Turn the drift cutters to the up position and secure with the carriage bolts and hex insert lock nuts as shown in Figure 6-2.

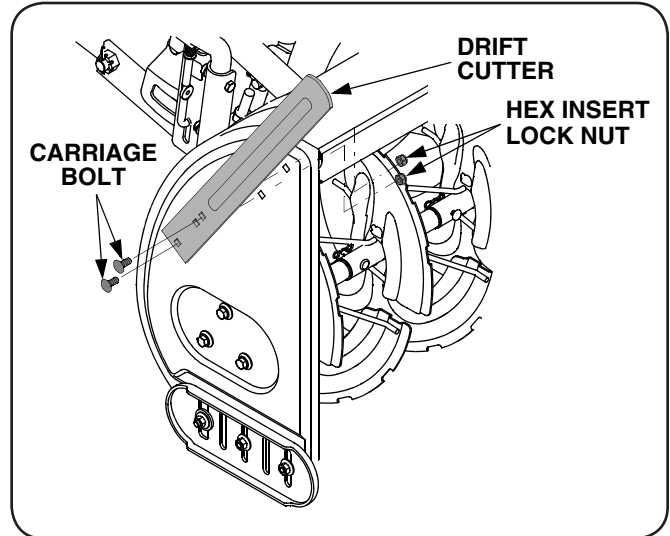


Figure 6-2

### Lift Latch Adjustment.

The lift index rod is operated by the trigger assembly on the lift handle, through the latch release cable. The cable is adjustable to assure proper engagement and release.

- If the index rod does not latch securely, loosen the upper jam nut and tighten the lower jam nut until the rod fully seats in the latch slot of the lift latch bracket. Refer to Figure 6-3.
- If the release cable has excess slack and it is difficult to disengage the rod from the latch slot, loosen the lower jam nut and tighten the upper jam nut until the excess slack is removed from the cable. Refer to Figure 6-3.

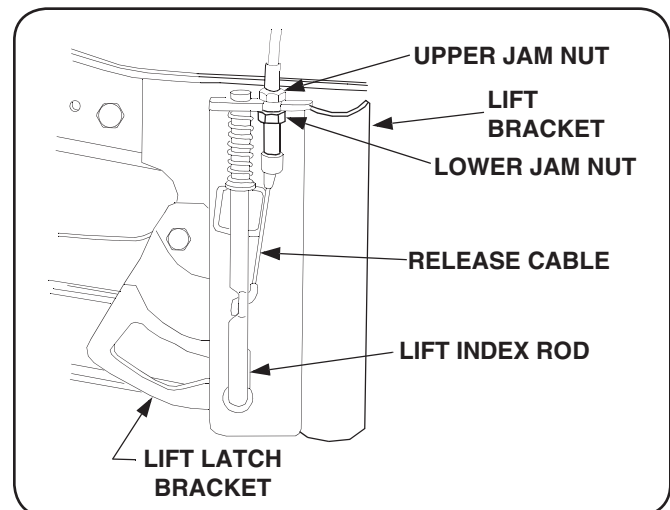


Figure 6-3

## Lift Link Adjustment

The adjustable lift link assemblies at each end of the lift shaft are adjusted at the factory and should not require readjustment. However if the drive shaft makes contact with any part of the tractor when the snow thrower is raised to the transport position, the lift links should be adjusted as follows:

- Raise the snow thrower to its fully raised position.
- Loosen the hex insert lock nut at the top of one adjustable eyebolt link. Refer to Figure 6-4.
- Thread the hex nut beneath the lift link up the eyebolt to lengthen the lift link assembly. Lengthen the lift link assembly only as needed to eliminate the drive shaft contact. Retighten the hex insert lock nut after adjusting. See Figure 6-4.
- Repeat the above procedures to adjust the lift link assembly on the other side of the snow thrower to the same length.

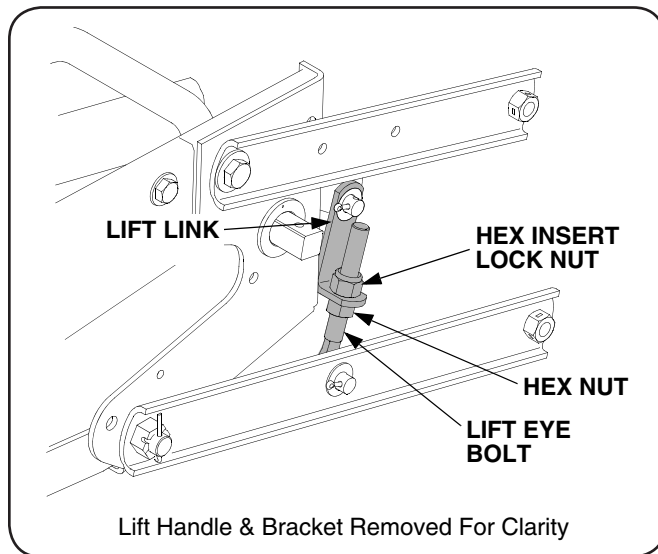


Figure 6-4

## Controls

- The snow thrower controls are conveniently located at the operator's position on the tractor.
- The lift handle is used to raise and lower the snow thrower. To raise the snow thrower, pull back and down on the lift handle until the lift index rod fully engages the latch slot of the lift latch bracket. To lower the snow thrower, push slightly downward on the lift handle, then pull the trigger. With the trigger pulled, lower the snow thrower slowly until it contacts the ground. Refer to Figure 6-5.

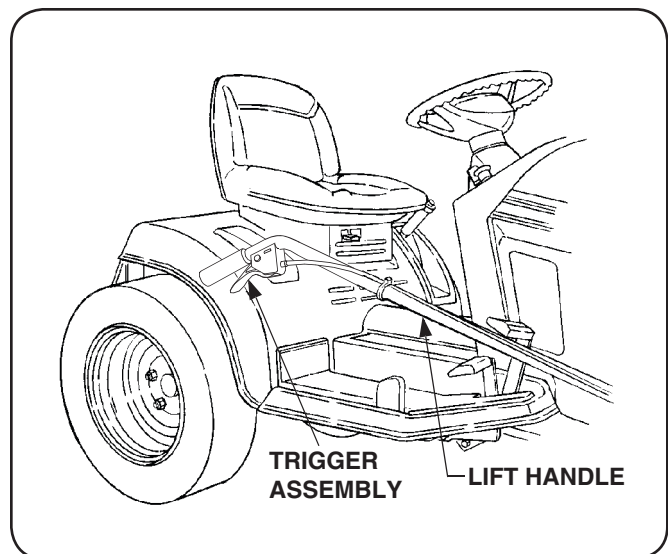


Figure 6-5

- The discharge chute control crank is located on the left hand side of the snow thrower. The chute crank controls the direction in which snow is thrown. The discharge radius is 190 degrees. Turn the crank clockwise to discharge to the left and counterclockwise to discharge to the right. See Figure 6-6.
- The chute tilt handle is also located on the left hand side of the snow thrower. The pivoting upper section of the discharge chute pivots downward when the tilt handle is pushed forward — decreasing the distance snow is thrown. Pulling the handle backwards pivots the upper section upward — increasing the distance snow is thrown. Refer to Figure 6-6.

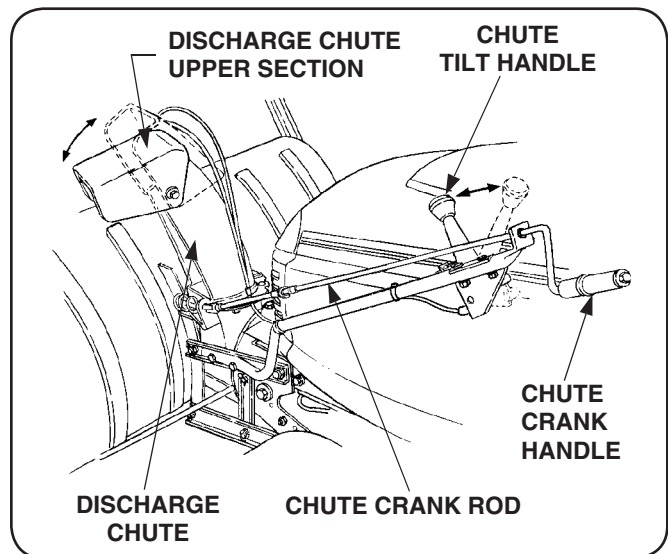


Figure 6-6

- The front PTO switch on the tractor dash panel controls the snow throwing action. Engage the snow thrower auger by pulling the PTO switch to the "Engaged" position. Push the switch to the "Disengaged" position to stop the snow throwing action.



## Operation

The following steps describe methods for safe and proper operation of this snow thrower. Refer to "SAFE OPERATION PRACTICES" on page 2 of this manual for additional safe operating practices.

1. The snow thrower is capable of handling heavy snow conditions. Become fully familiar with all aspects of both the tractor and snow thrower prior to its usage. DO NOT remove any guards or covers while operating the tractor and snow thrower.



**WARNING!** Whenever the snow thrower is installed on the front of the tractor, use rear weights on the tractor to counterbalance the weight of the snow thrower and provide stability to the tractor. See "TO THE OWNER" on page 5.

2. Before placing the snow thrower into operation:
  - a. Check all nuts and bolts for correct tightness. Be sure that all parts are properly assembled.
  - b. Test all controls for proper operation.
    - Tractor lift handle
    - PTO switch
    - Discharge chute control crank assembly
    - Discharge chute tilt control
  - c. Inspect the tractor and snow thrower to make certain both are in good operating condition.
  - d. Fill the tractor's fuel tank outdoors. Avoid spilling fuel onto the engine or any other source of heat or combustion. Do not fill the tank while the engine is running. Wipe up any spilled fuel before starting the engine.
5. The auger speed is directly related to the engine speed. For optimal snow removal and discharge, maintain high engine R.P.M. (full throttle). Control the tractor's ground speed using the forward control pedal of the tractor (refer to tractor Operator's Manual if necessary). It is recommended that the tractor be operated at a slow ground speed for safer handling and efficient snow removal.
6. Snow removal conditions vary greatly from light fluffy snowfall to wet heavy snow. Therefore, operating instructions must be flexible to fit the conditions encountered. The operator must adapt the tractor and snow thrower to the depth of snow, wind direction, temperature and surface conditions.
7. In deep, drifted or banked snow, it will be necessary to use full throttle and a slow ground speed. Drive the auger into the snow, stop and allow the auger to clear the snow. Repeat this method until a path is cleared. On the second pass (and each succeeding pass), overlap the preceding pass enough to allow the auger to handle the volume of snow without having to stop the tractor.
8. In extremely deep snow, the snow thrower may be raised to the transport position, then slowly driven into the deep snow to remove the top layers first. However, do not drive the tractor into a snow bank where the snow has not been cleared to the ground level. Stop the tractor's forward

movement and allow the auger to clear the snow. Reverse the tractor and lower the snow thrower to the ground to clear the remaining snow. Working with repeated passes into and out of drifts, even the deepest snow piles can be cleared.

## Special Precautions



**WARNING!** If the snow thrower becomes plugged with snow or jammed due to hitting a foreign object, disengage the snow thrower immediately and stop the tractor engine.



**WARNING!** Never place your hand into the discharge chute to remove plugged snow. Use a wooden dowel rod, or similar object, to unclog the chute. Never use your hand to remove any object jamming the auger or impeller. Use an appropriate tool (dowel rod, bar, etc.) to remove the obstruction.



**WARNING!** If the auger is jammed or bent from hitting a foreign object, disengage the PTO, stop the tractor engine, and remove the spark plug wire(s) from the spark plug(s). Use the appropriate tool to remove the foreign object from the auger and inspect for damage. If damage is noted, repair or replace damaged components prior to continuing operation. Reconnect the spark plug wires and resume operation.

## Operating Tips

- Whenever possible, discharge snow down wind.
- DO NOT attempt to clear ice or hard packed-frozen snow.
- Always overlap each pass slightly to assure complete snow removal.
- A frozen or stuck auger or chute must be broken loose or thawed with care. When attempting to loosen a frozen or jammed auger, shut off the tractor engine and disconnect the spark plug wire(s). Never attempt to clear the snow thrower at any time with the tractor engine running.

**NOTE:** When the snow thrower and tractor are not in use, lower the snow thrower to the ground to relieve the weight from the snow thrower sub-frame and the front tires.



**WARNING!** When making any adjustments, disengage the PTO and turn the tractor engine off.

## During Seasonal Usage

This section describes maintenance procedures designed to keep your snow thrower in good operating condition.

### Shave Plate And Skid Shoes

The shave plate and skid shoes on the bottom of the snow thrower housing are subject to wear. They should be periodically checked for wear and replaced when necessary. Failure to do so will result in damage to the housing. Refer to Figure 7-1.

Replace the shave plate as follows:

- a. Remove the six hex nuts, bell washers, and carriage bolts that secure the shave plate to the bottom of the housing.
- b. Remove the rear most hex nut, bell washer, flat washer and carriage bolt securing the back end of each skid shoe to the sides of the housing. Loosen the four remaining hex nuts that secure the skid shoes to the housing.
- c. Slide the shave plate out of the off-set slot at the bottom of the housing, and from between the skid shoes and side panels of the housing.
- d. With the mounting holes toward the back, slide the new shave plate into position. Loosely install the six carriage bolts, bell washers, and hex nuts fastening the shave plate to the bottom of the housing.
- e. Insert the carriage bolts through the rear of skid shoes and the ends of the shave plate and the install the flat washers, bell washers, and hex nuts removed earlier.
- f. Reposition the skid shoes and fully tighten the fasteners securing the skid shoes to the housing. Fully tighten the fasteners securing the shave plate.

The skid shoes are reversible for longer life. Remove the hex nuts, flat washers, bell washers and carriage bolts fastening the skid shoes to the housing. Turn the shoes over and/or reverse sides to ensure even wear and extend their service life.

### Augers

1. The augers are secured to the auger shaft with six shear pins and bow-tie cotter pins. Refer to Figure 7-1. If an auger is suddenly jammed by a foreign object or ice chunk, the pin is designed to shear — minimizing potential damage to the gear box or sprocket box.
2. If the augers will not turn, check the pins to see if they have sheared. Two replacement shear pins (5, Fig. 3-2) and bow-tie cotter pins (12, Fig. 3-2) have been provided with the snow thrower. For future use, order part number 738-04124A for replacement shear pins and 714-04040 for the bow-tie cotter pins.

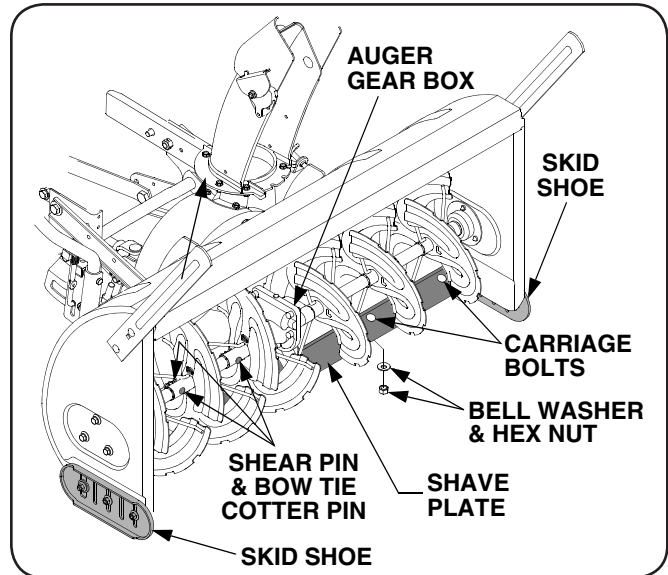


Figure 7-1

### Lubrication

1. The auger gear box is lubricated with grease at the factory and is neither externally serviceable, nor requires checking. If disassembled for any reason, lubricate with 2 ounces (by weight) of Shell Alvania grease, part number 737-0168. Before reassembling, remove all old sealant and apply Loctite Ultra Grey (759-3746) sealant, or equivalent, to the housing halves.
2. The sprocket box assembly is also neither externally serviceable, nor requires checking. If disassembled for any reason, lubricate with 5.0 ounces (by weight) of Benalene grease, part number 737-0300A. Before reassembling, remove old sealant and apply Loctite Ultra Grey (759-3746) sealant or equivalent.
3. The right angle gear box is not serviceable and should not be disassembled.
4. Apply penetrating oil to the cables of the chute tilt handle assembly at least once a season.
5. Apply a good grade of spray lubricant to the universal joints of the chute crank, and to the pivot of the chute tilt handle at least once a season.
6. Lubricate the chute crank spiral gear with a multi-purpose automotive grease once a year.
7. Lubricate the telescoping square spindle of the drive shaft (rear half) using 251H EP grease or an equivalent No. 2 multi-purpose lithium grease once a year.
8. Lubricate the bearings at each end of the auger shaft with oil or spray lubricant at least once a season.
9. Although not necessary, it is advisable to remove the auger shear pins at least once a season and spray penetrating oil between the auger tubes and auger shaft.

## Off-Season Storage

At the end of the snow season the following steps are recommended:

1. Remove the snow thrower assembly from the tractor.
2. Wash off any salt deposits which may have dried on the snow thrower housing. Paint, or cover with a light coat of oil, any exposed metal surfaces.
3. Lubricate bearings and pivot points with a good grade of spray lubricant.
4. Store the snow thrower in a dry place.

## Additional Accessory Requirements

### Weight Kit Model 307



**WARNING!** The weight kit, Model 307, must be installed on the rear of the tractor whenever the snow thrower attachment is installed on the front of the tractor. The weight kit must be used with the proper weights.

1. At all times that the snow thrower is installed on the front of the tractor, the weight kit must be installed on the rear of the tractor. The weight kit counterbalances the weight of the snow thrower and provides stability to the tractor.
2. Depending upon the prevailing conditions, a minimum of two suitcase weights and a maximum of four suitcase weights must be used with the weight kit.
3. Refer to the weight kit Operator's Manual for detailed instructions pertaining to the proper installation of the weight kit onto the rear of the tractor.

### Tire Chains

Tire chains are recommended when using the 42-inch snow thrower attachment. Tire chains are available at your authorized Cub Cadet dealer.

**CUB CADET LLC  
MANUFACTURER'S LIMITED WARRANTY FOR  
SERIES 2500 TRACTORS**

**IMPORTANT:** To obtain warranty coverage owner must present an original proof of purchase and applicable maintenance records to the servicing dealer. Please see the operator's manual for information on required maintenance and service intervals.

The limited warranty set forth below is given by Cub Cadet LLC with respect to new merchandise purchased or leased and used in the United States and/or its territories and possessions, and by MTD Products Limited with respect to new merchandise purchased or leased and used in Canada and/or its territories and possessions (either entity respectively, "Cub Cadet").

Cub Cadet warrants this product (excluding its *Normal Wear Parts, Batteries, Frame, Front Axle and Drive Shaft and Attachments* as described below) against defects in material and workmanship for a period of three (3) years or one hundred fifty (150) operation hours, whichever comes first, commencing on the date of original retail purchase or lease and will, at its option, repair or replace, free of charge, any part found to be defective in materials or workmanship.

*Normal Wear Parts* are warranted to be free from defects in material and workmanship for a period of thirty (30) days from the date of original purchase or lease. Normal wear parts include, but are not limited to items such as: belts, blades, blade adapters, grass bags, rider deck wheels, seats, and tires.

*Batteries* have a one-year prorated limited warranty against defects in material and workmanship, with 100% replacement during the first three months. After three months, the battery replacement credit is based on the months remaining in the twelve (12) month period dating back to the original date of original sale or lease. Any replacement battery will be warranted only for the remainder of the original warranty period.

*Frame, Front Axle and Drive Shaft* — Cub Cadet warrants the frame, front cast iron pivot axle and drive shaft against defects in material and workmanship for a period of five (5) years or 500 hours, whichever occurs first, commencing on the date of original purchase or lease.

*Attachments* — Cub Cadet warrants attachments for this product against defects in material and workmanship for a period of two (2) years, commencing on the date of the attachment's original purchase or lease. Attachments include, but are not limited to items such as: grass collectors and mulch kits.

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, 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 part, accessory or attachment not approved by Cub Cadet for use with the product(s) covered by this manual will void your warranty as to any resulting damage. In addition, Cub Cadet may deny warranty coverage if the hour meter, or any part thereof, is altered, modified, disconnected or otherwise tampered with.

**HOW TO OBTAIN SERVICE:** Warranty service is available, WITH PROOF OF PURCHASE AND APPLICABLE MAINTENANCE RECORDS, through your local authorized service dealer. To locate the dealer in your area:

**In the U.S.A.:**

Check your Yellow Pages, or contact Cub Cadet LLC at P.O. Box 361131, Cleveland, Ohio 44136-0019, call 1-877-282- 8684 or log on to our website at [www.cubcadet.com](http://www.cubcadet.com).

**In Canada:**

Contact MTD Products Limited, Kitchener, ON N2G 4J1, call 1-800-668-1238 or log on to our website at [www.mtdcanada.com](http://www.mtdcanada.com).

Without limiting the foregoing, this limited warranty does not provide coverage in the following cases:

- a. 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.
- b. Service completed by someone other than an authorized service dealer.
- c. Cub Cadet does not extend any warranty for products sold or exported outside of the United States and/or Canada, and their respective possessions and territories, except those sold through Cub Cadet's authorized channels of export distribution.
- d. Replacement parts and/or accessories that are not genuine Cub Cadet parts.
- e. Transportation charges and service calls.

**There are no implied warranties, including without limitation any implied warranty of merchantability or fitness for a particular purpose. No warranties shall apply after the applicable period of express written warranty above. No other express warranties beyond those mentioned above, given by any person or entity, including a dealer or retailer, with respect to any product, shall bind Cub Cadet. The exclusive remedy is repair or replacement of the product as set forth above. The terms of this warranty provide the sole and exclusive remedy arising from the sale and/or lease of the products covered hereby. Cub Cadet shall not be liable for any 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 jurisdictions 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 LOCAL LAWS RELATE TO THIS WARRANTY:** This limited warranty gives you specific legal rights, and you may also have other rights that vary in different jurisdictions.

**Cub Cadet LLC, P.O. BOX 361131 CLEVELAND, OHIO 44136-0019, Phone: 1-877-282-8684  
MTD Products Limited, Kitchener, ON N2G 4J1, Phone: 1-800-668-1238**