



# **Operator's Manual**

## **42" SNOW THROWER ATTACHMENT**

**For Cub Cadet  
Series 2000/2500 Tractors**

**(Requires 190-307 Weight Bracket Kit and Weights)**

## **INSTALLATION AND MAINTENANCE INSTRUCTIONS**

**Model Number**

**341**

**(190-341-100)**

### **IMPORTANT:**

**READ SAFETY RULES AND INSTRUCTIONS CAREFULLY**

**CUB CADET LLC P.O. BOX 361131 CLEVELAND, OHIO 44136-0019 [[www.cubcadet.com](http://www.cubcadet.com)]**


# CONTENTS

Section		Page
	Safe Operation .....	2
	To The Owner .....	5
I	Introduction .....	6
II	Assembly .....	8
III	Installation and Removal .....	11
IV	Adjustments and Operation .....	14
V	Maintenance .....	18
VI	Additional Accessory Requirements .....	19
	Warranty .....	20

## IMPORTANT

## SAFE OPERATION PRACTICES



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 YOUR UNIT. FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY. WHEN YOU SEE THIS SYMBOL—  **HEED ITS WARNING.**



### WARNING

To reduce the potential for any injury, comply with the following safety instructions. Failure to comply with the instructions may result in personal injury.

## SAFE OPERATION PRACTICES FOR SNOW THROWERS

### TRAINING

1. Read, understand, and follow all instructions on the machine and in the manual before attempting to assemble and operate. Keep this manual in a safe place for future and regular reference.
2. Be familiar with all controls and their proper operation. Know how to stop the unit and disengage the controls 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. Never allow adults to operate equipment without proper instructions.
4. No one should operate the unit while intoxicated or while taking medication that impairs the senses or reactions.
5. Thrown objects can cause serious personal injury. Plan your snow-throwing pattern to avoid discharge of material toward roads, bystanders and the like. Stop the machine if anyone enters the area.
6. Keep bystanders, helpers, pets and children at least 75 feet from the machine while it is in operation. Stop the machine if anyone enters the area.
7. Exercise caution to avoid slipping or falling when mounting or dismounting the tractor.

### PREPARATION

1. Thoroughly inspect the area where the equipment is to be used. Remove all door mats, sleds, boards, wires and other foreign objects which can be thrown by the auger/impeller.
2. Disengage all clutches and shift into neutral before starting the engine.
3. Do not operate equipment without wearing adequate winter outer garments. Do not wear jewelry, long scarfs or other loose clothing which could become entangled in the moving parts of the machine. Wear footwear which will improve footing on slippery surfaces.

4. Check the fuel before starting the tractor engine. Gasoline is an extremely flammable fuel. Always use an approved fuel container to store gasoline. Do not fill the fuel tank indoors while the engine is running or while the engine is still hot. Replace the gasoline cap securely and wipe off any spilled gasoline before starting the engine. An ignition spark or heat may ignite spilled fuel, causing a fire or explosion.
5. Adjust the collector housing height to clear gravel or crushed rock surfaces.
6. Never attempt to make any adjustments while the engine is running (except where specifically recommended by the manufacturer).
7. Let the engine and machine adjust to the outdoor temperature before starting to clear snow.
8. Always wear safety glasses or eye shields during operation, or while performing an adjustment or repair, to protect your eyes. Thrown objects can ricochet and cause serious injury to the eyes.
8. When cleaning, repairing or inspecting, make certain the collector/impeller and all moving parts have stopped completely. Disconnect the spark plug wire and keep it away from plug to prevent accidental starting.
9. **Do not run the engine indoors** except when starting the engine and transporting the snow thrower in or out of the building. Open doors prior to starting engine. Exhaust gases contain carbon monoxide and are extremely dangerous.
10. Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear steep slopes.
11. Never operate snow thrower without all guards, plates or other safety protection devices in place.
12. Never operate the snow thrower near glass enclosures, automobiles, window wells, a drop off, etc., without proper adjustments of the snow thrower discharge angle. Keep children and pets away.

## OPERATION

1. Do not put hands or feet near rotating parts, in the auger housing or discharge chute. Contact with the rotating parts can amputate hands and feet.
2. Exercise extreme caution when operating on, or crossing, gravel drives, walks or roads. Stay alert for hidden hazards or traffic. Do not carry passengers.
3. After striking a foreign object, disengage the PTO, stop the engine, remove the wire(s) from the spark plug(s), and thoroughly inspect the snow thrower for any damage. Repair the damage before restarting and operating the snow thrower.
4. If the snow thrower should start to vibrate abnormally, disengage the PTO, stop the engine and check immediately for the causes. Vibration is generally a warning sign of trouble.
5. Disengage the PTO and stop the engine whenever you leave the operating position, before unclogging the collector/impeller housing or discharge chute, and before making any repairs, adjustments or inspections.
6. Never place your hand in the discharge or collector openings. Use a stick or wooden broom handle to unclog the discharge opening.
7. Take all possible precautions when leaving the unit unattended. Disengage the collector/impeller, shift into neutral and engage the parking brake, stop the engine and remove the key.
13. Do not overload the machine capacity by attempting to clear snow at too fast a rate.
14. Never operate the machine at high transport speeds on slippery surfaces. Look behind and use care when backing up.
15. Never direct discharge at bystanders or allow anyone in front of the unit.
16. Disengage power to the collector/impeller when transporting or not in use.
17. Use only attachments and accessories approved by the manufacturer of snow thrower (such as wheel weights, counterweights, cabs, etc.).
18. Never operate the snow thrower without good visibility or artificial light.
19. If situations occur which are not covered in this manual, use care and good judgment. Contact your dealer or call customer assistance to locate your nearest servicing dealer.

## MAINTENANCE AND STORAGE

1. Check for proper tightness of assembly bolts, mounting bolts, etc., at frequent intervals to be sure equipment is in safe working condition.
2. Never store the machine, with fuel in the fuel tank, inside a building where ignition sources are present, such as hot water and space heaters, clothes dryers and the like. Allow the engine to cool before storing in any enclosure.

3. Always refer to the Owner's Manual instructions for important details if the snow thrower is to be stored for an extended period.
4. Run the machine for a few minutes after throwing snow to prevent freeze up of the collector/impeller.

## PRODUCT SAFETY GRAPHICS

1. Keep safety product graphics (decals) clean.
2. Replace any safety graphic that is damaged, destroyed, missing, painted over or can no longer be read.
3. Replacement safety graphics are available through your Cub Cadet dealer.



**ON TOP OF DISCHARGE CHUTE**



**ON UPPER/REAR OF BLOWER HOUSING**  
**DANGER W/SCRIPT — FACING OPERATOR**  
**DANGER W/GRAPHIC — FACING FRONT OF SNOW THROWER**

## TO THE OWNER

The Cub Cadet 42-inch Snow Thrower Attachment, Model Number 341, is designed for use on Cub Cadet Series 2000 and Series 2500 Tractors. Contained in this manual are instructions for the installation and use of the snow thrower assembly with these tractors. **DO NOT** attempt to install this attachment on any other tractor model. Proper and/or safe operation cannot be assured.

**Please keep this manual.** The instructions in this manual explain the minor assembly required; installation and seasonal removal; and the adjustment, operating and maintenance procedures for the snow thrower assembly. Read this manual carefully to familiarize yourself with the equipment before you install and operate the snow thrower.

Read and observe all **WARNING** and **CAUTION** statements. They are included to provide for the protection of the equipment installer and user, and to ensure prolonged service life of the equipment.



### WARNING

To increase traction and stability of the tractor when using the snow thrower attachment, the rear weight bracket with a minimum of two suitcase weights should be installed on the tractor. The Rear Weight Bracket Kit is available as kit number 190-307-100, which includes **only** the bracket and mounting hardware. The individual 42 pound suitcase weights can be ordered under part number 759-3389.



### NOTE

References to **LEFT** and **RIGHT** indicate the left and right sides of the tractor when facing forward in the driver's seat, unless specifically instructed to reference from a different position on the tractor. Reference to the **FRONT** indicates the grille end of the tractor; to the **REAR** indicates the draw bar end.

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



If you have difficulties with the attachment, have questions regarding the operation or maintenance of your equipment, or desire additional information not found in the manual, contact your dealer. If you need help locating a dealer in your area, contact the Customer Dealer Referral Line by calling:

**1-877-282-8684**

Or you may contact Cub Cadet via the internet by logging on to our Web Site at:

**[www.cubcadet.com](http://www.cubcadet.com)**

## SECTION I. INTRODUCTION

This section will familiarize you with the components of the Model 190-341 — 42" Snow Thrower Attachment.

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 1 and 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 1 and 2 will be identified by name, followed by either their callout letter or 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.

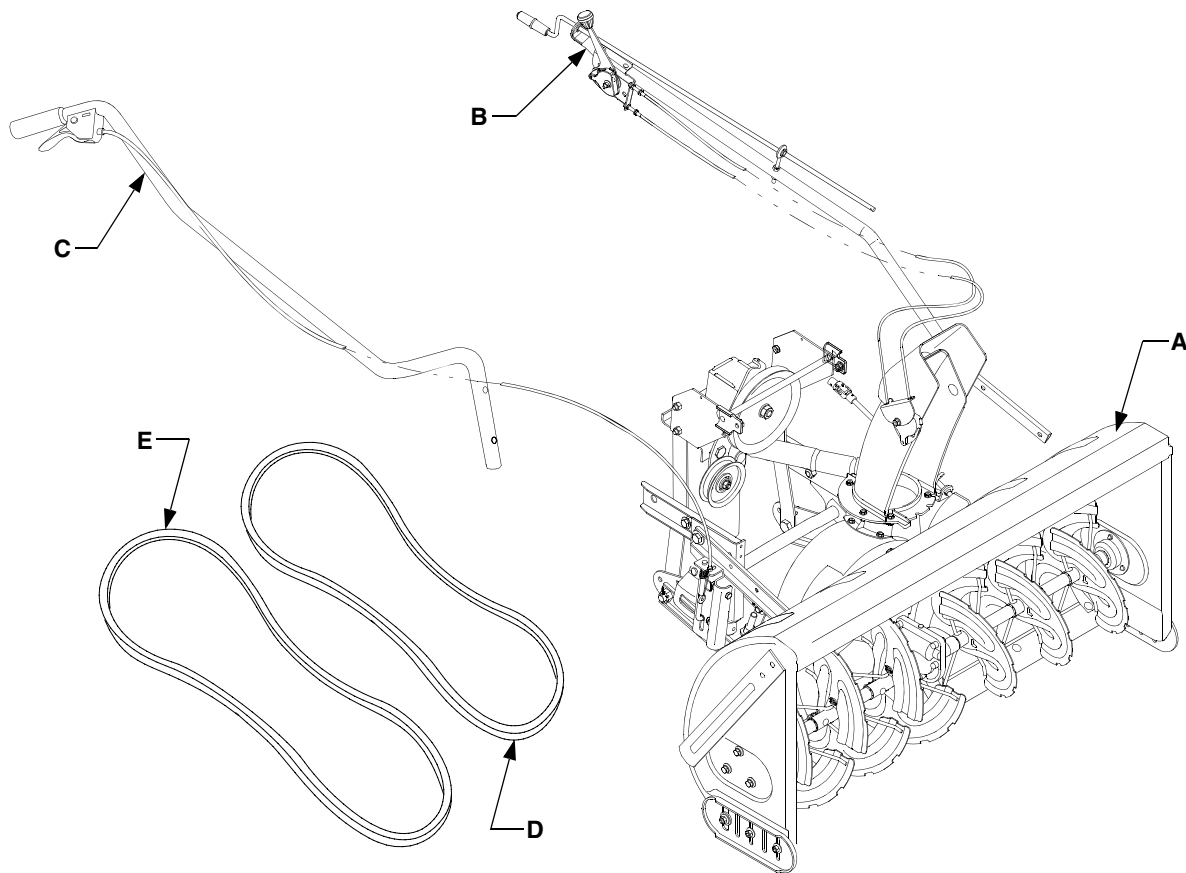
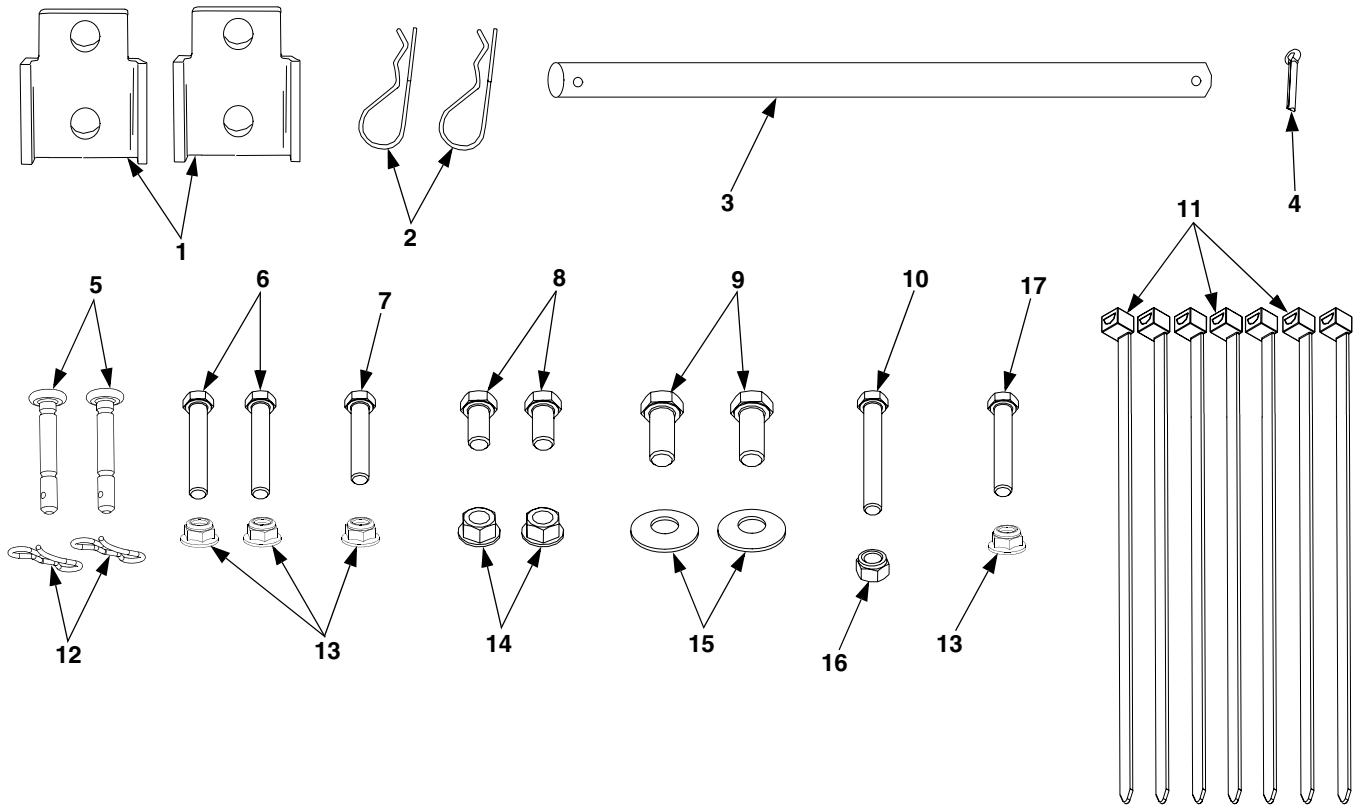


Figure 1

REF. NO.	PART NO.	DESCRIPTION	QTY.
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

## CONTENTS OF HARDWARE PACK



**Figure 2**

REF. NO.	PART NUMBER	DESCRIPTION	QTY.
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

## SECTION II. ASSEMBLY

### A. 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 subframe and carefully unfold the subframe arms (See Figure 3).

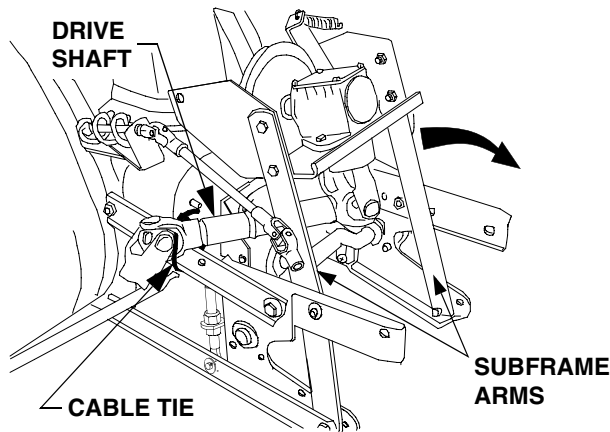


Figure 3

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.2) and hex insert lock nut (16, Fig.2). See Figure 4.

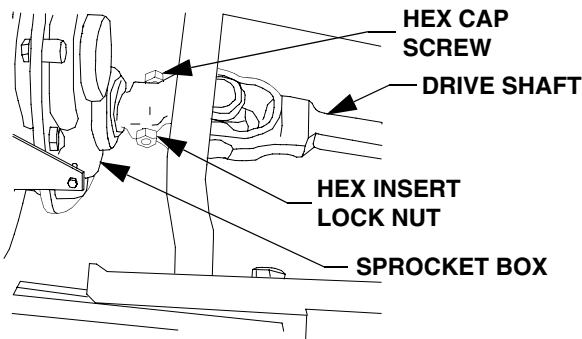


Figure 4

3. Install the chute crank support tube (B, Fig.1) onto the LH upper link of the snow thrower (A, Fig.1) subframe using the hex cap screw (7, Fig.2), hex cap screw (17, Fig.2) and two hex flange lock nuts (13, Fig.2). *Note: the longer hex cap screw (17) must be installed in the rearward hole.* Refer to Figure 5.

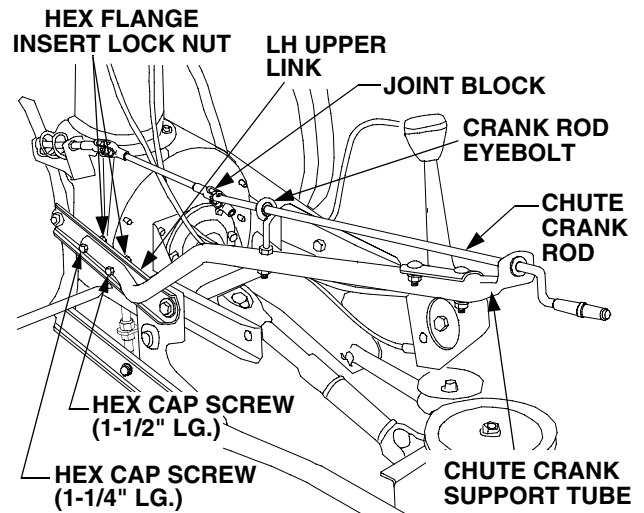


Figure 5

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.2). See Figures 5 and 6.

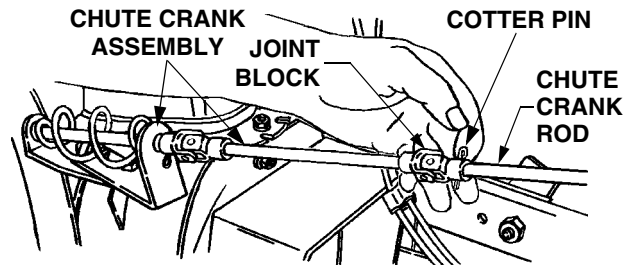


Figure 6

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.2). See Figure 7. Cut excess length from the cable ties.

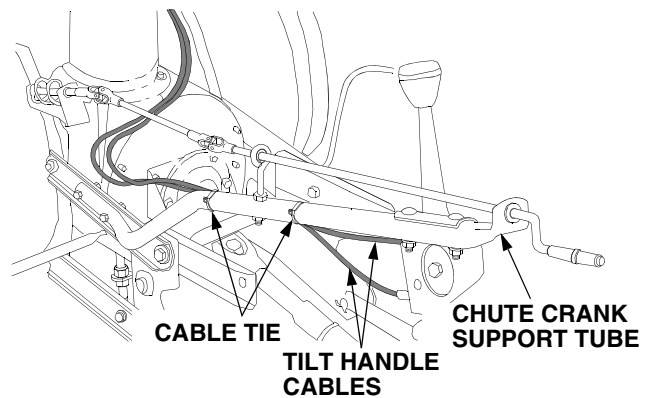


Figure 7



6. 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). See Figure 8.

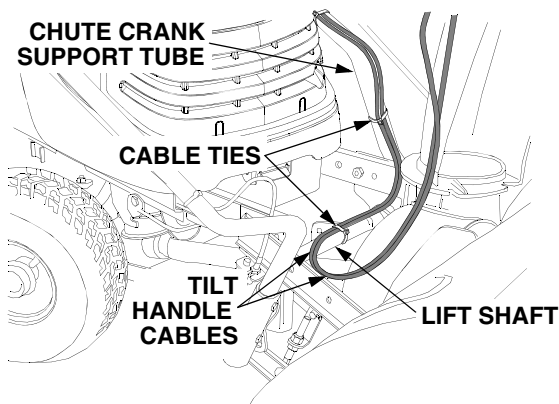


Figure 8

7. 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). *Do not fully tighten the cable tie.* Refer to Figure 8.
8. 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 9.

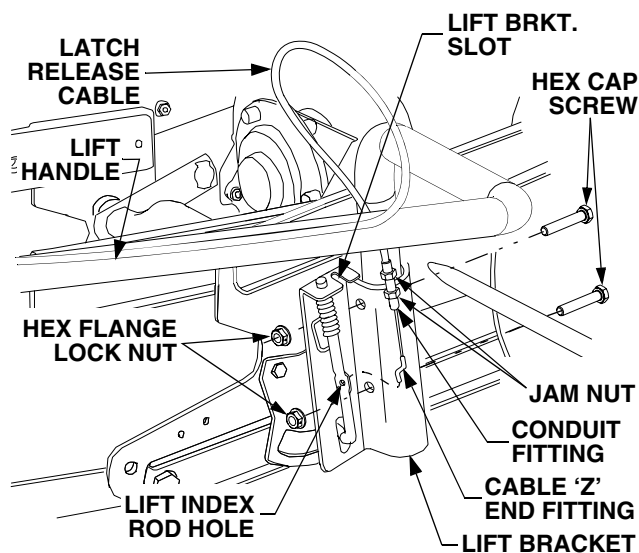


Figure 9

**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.

9. Insert the bottom of the cable 'Z' end fitting through the hole in the lift index rod. Refer to Figure 9.

10. 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 Figure 9.
11. Temporarily tighten the jam nuts against the upper and lower surfaces of the lift bracket.
12. 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 9.
13. Refer to **Lift Latch Adjustment** on Page 14 for instructions to adjust the cable.
14. Route the latch release cable along the lift handle and secure the cable to the handle using two tie straps (11, Fig.2) as shown in Figure 10. Cut the excess from the tie strap ends.

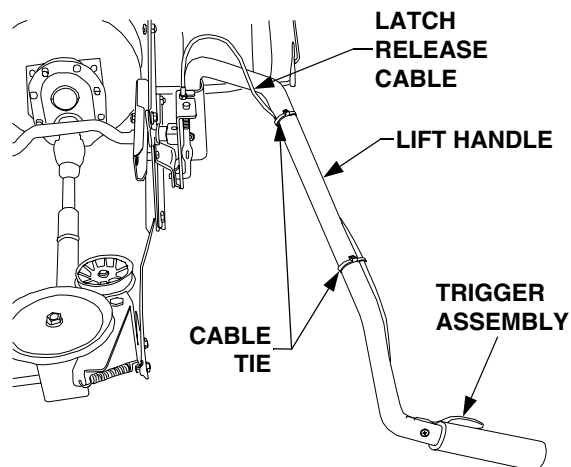


Figure 10

## B. 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 11.

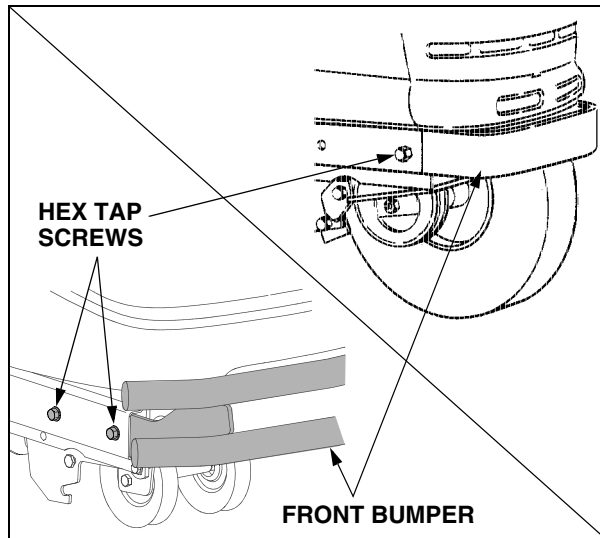


Figure 11

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 near one end of the original label and carefully affix to the rear fender as shown in Figure 1. Repeat to install the other reflector label in the second position.

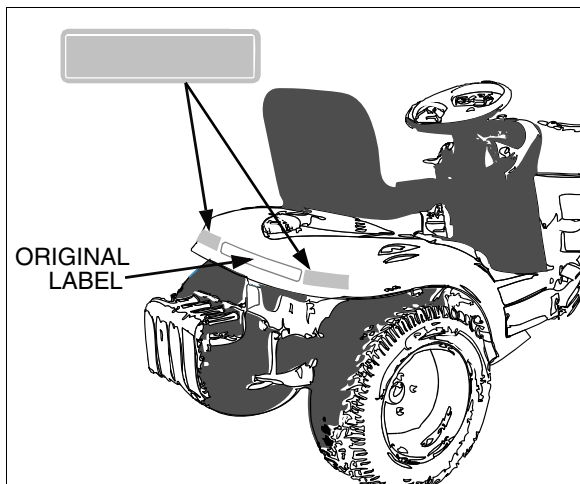


Figure 12

3. Install the frame mounting bracket (1, Fig.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 13.

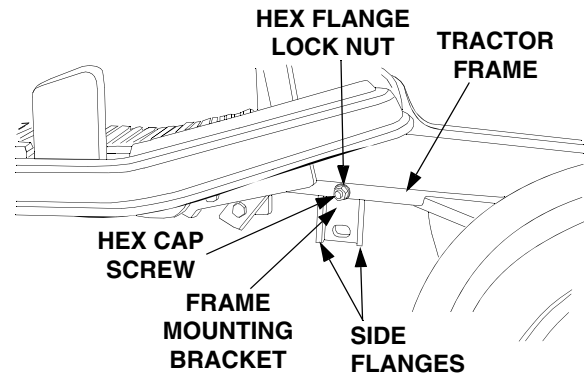


Figure 13

- 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 14.

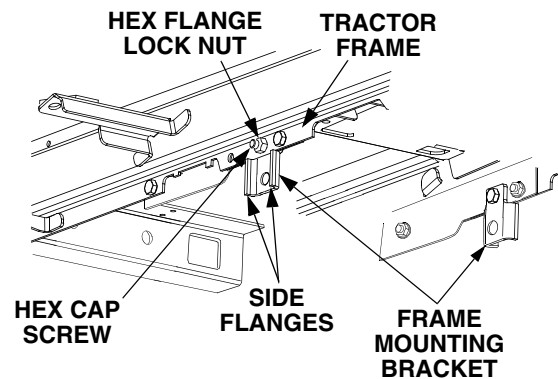


Figure 14

- 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.2) and hex flange lock nuts (14, Fig.2). Insert the cap screws from inside the tractor frame.

## SECTION III. INSTALLATION AND REMOVAL

### A. 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 17).

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 15

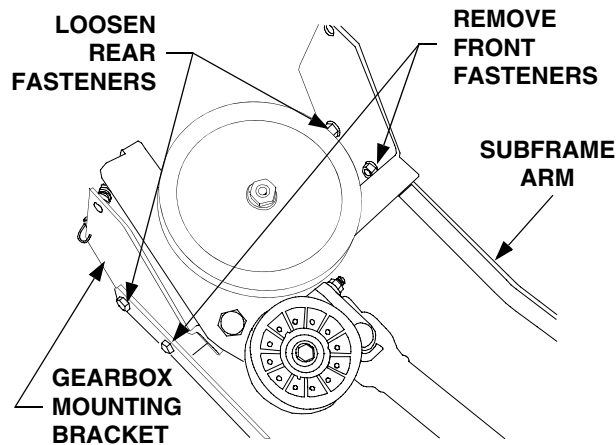


Figure 15

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 16.

**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.

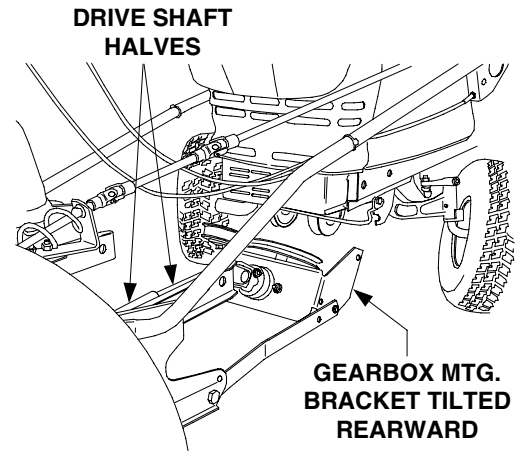


Figure 16

4. Slide the snow thrower assembly rearward until the channel brackets of the hitch assembly engage the frame channels of the tractor. See Figure 13.

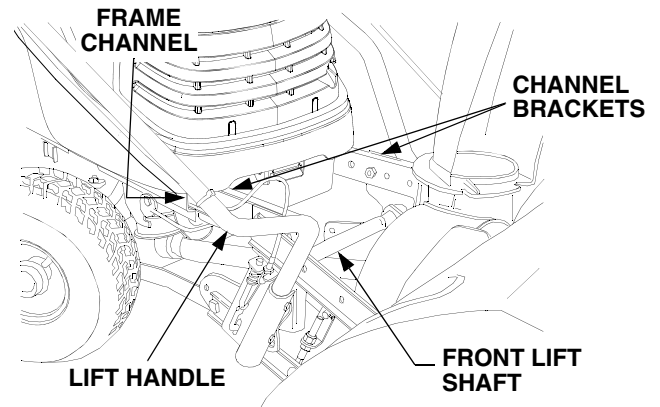


Figure 17

5. 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.2) and bell washers (15, Fig.2). See Figure 18.

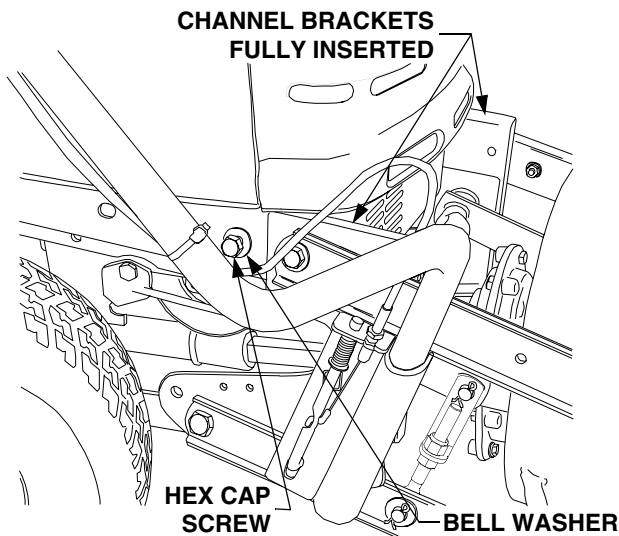


Figure 18

6. **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 19.

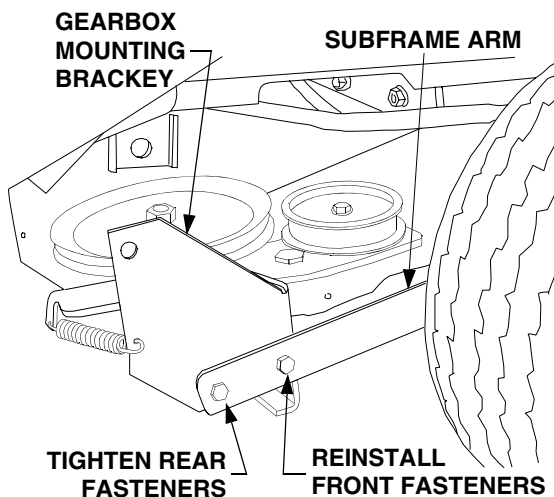


Figure 19

**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.

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

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

8. 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 20.

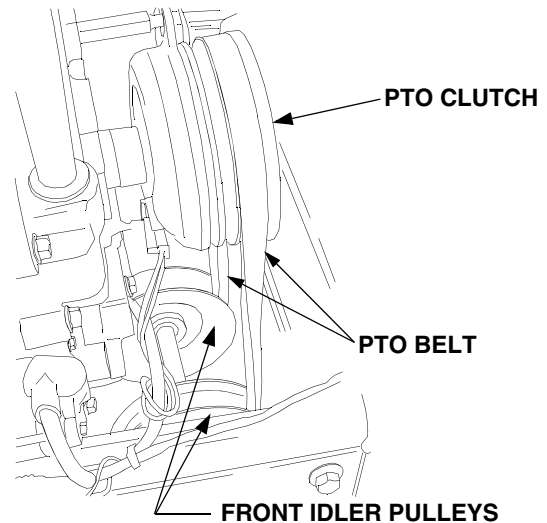


Figure 20

9. 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 20.
10. 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 21. Make certain there is no more than a 1/4 inward twist in both runs of the belt.

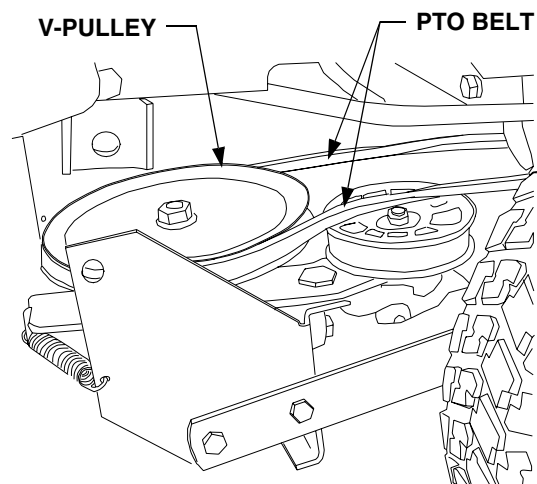


Figure 21

11. Install an internal cotter pin (2, Fig.2) into one end of the rod (3, Fig.2). Refer to Figure 22.
12. Lift the gearbox mounting bracket/subframe assembly up between the frame mounting brackets (1, Fig.2) installed earlier on the tractor. Align the holes and slide the rod (3) through the frame mounting brackets and the gear box mounting bracket. Install the other internal cotter pin (2, Fig.2) into the other end of the rod. See Figure 22.

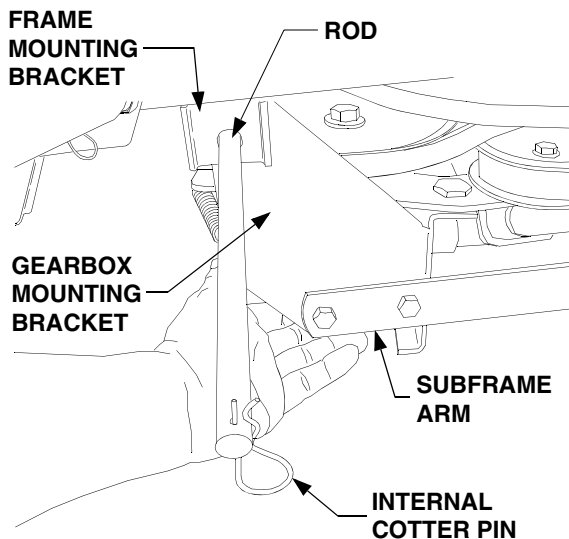


Figure 22

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 23.

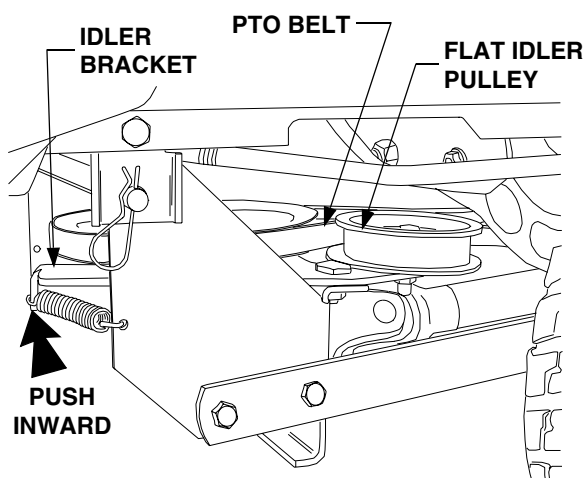


Figure 23

## B. 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 28).
3. Press inward on the rear of the idler bracket to disengage the PTO belt from the flat idler pulley (Refer to Figure 23).
4. Remove the internal cotter pin from one end of the rod (3). Support the gearbox mounting bracket and withdraw the rod from the frame mounting brackets (Refer to Figure 22). Lower the subframe to the ground.
5. Remove the PTO belt from the rear V-pulley on the snow thrower gearbox (Refer to Figure 21)

**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 20).
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 18).
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 15).
9. Pull the snow thrower assembly forward to disengage the channel brackets from the tractor frame channels (Refer to Figure 17).

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

## SECTION IV. ADJUSTMENTS AND OPERATION

### A. 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.

#### 1. 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 24.
- 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.

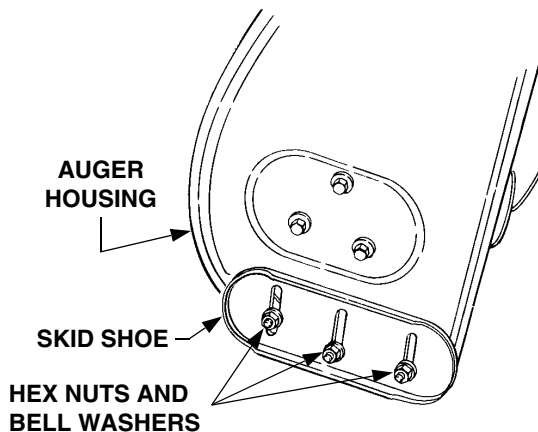


Figure 24

#### 2. 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 25 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 25.

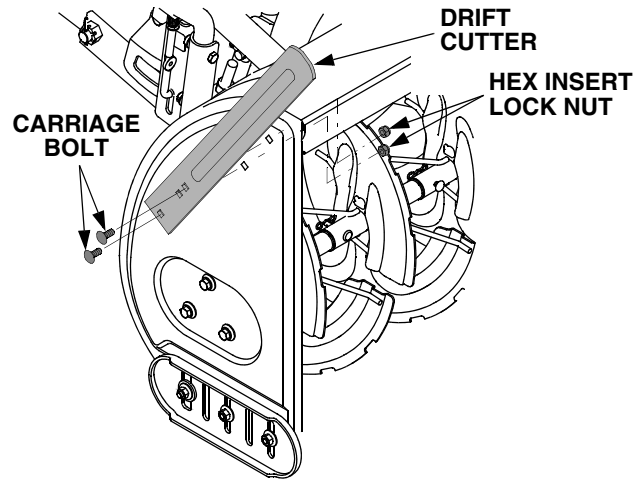


Figure 25

#### 3. 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 26.
- 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 26.

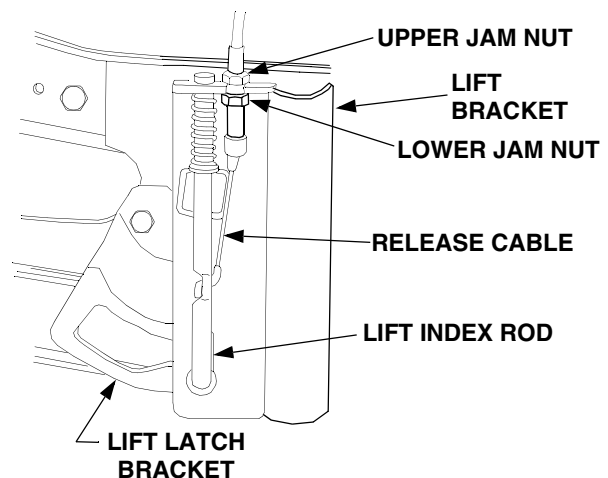


Figure 26

#### 4. 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:

1. Raise the snow thrower to its fully raised position.
2. Loosen the hex insert lock nut at the top of one adjustable eyebolt link. Refer to Figure 27.
3. 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 27.
4. Repeat the above procedures to adjust the lift link assembly on the other side of the snow thrower to the same length.

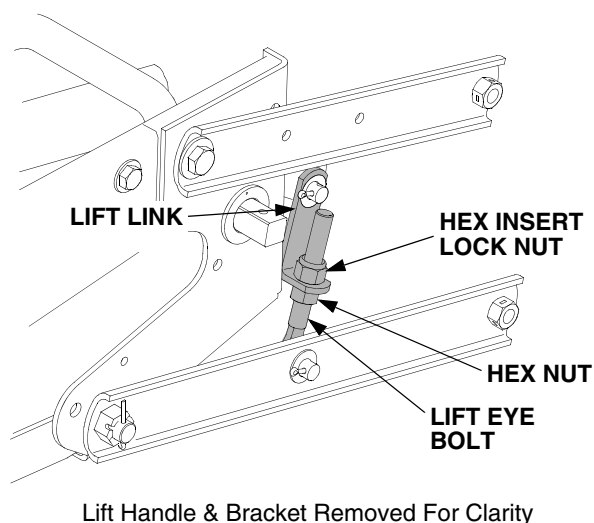


Figure 27

#### B. CONTROLS.

1. The snow thrower controls are conveniently located at the operator's position on the tractor.
2. 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 28.

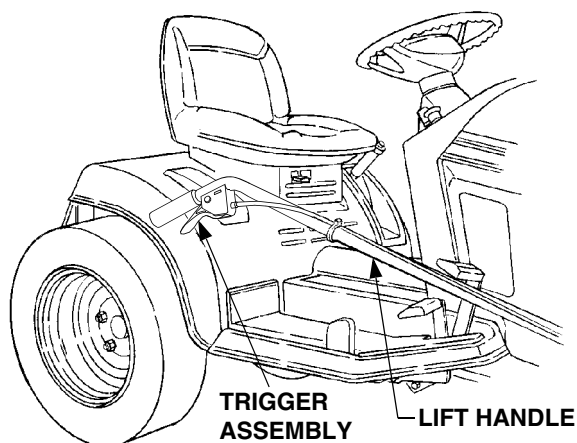


Figure 28

3. 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 29.

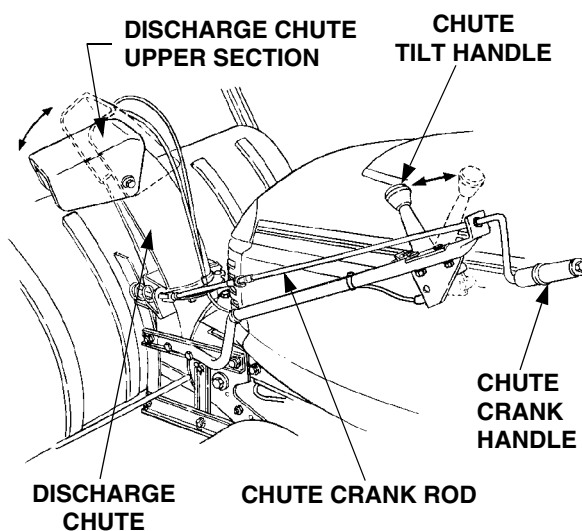


Figure 29

4. 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 29.

5. 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.

### C. 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.
3. 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.
4. Snow removal conditions vary greatly from light fluffy snowfall to wet heavy snow. Therefore, operating instructions must be flexible to fit the condi-

tions encountered. The operator must adapt the tractor and snow thrower to the depth of snow, wind direction, temperature and surface conditions.

5. 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.
6. 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.

### D. 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.**



## E. 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 subframe and the front tires.*



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

## SECTION V. MAINTENANCE

### A. DURING SEASONAL USE.

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 30.

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 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.
2. 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 26. 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) and bow-tie cotter pins (12) 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.

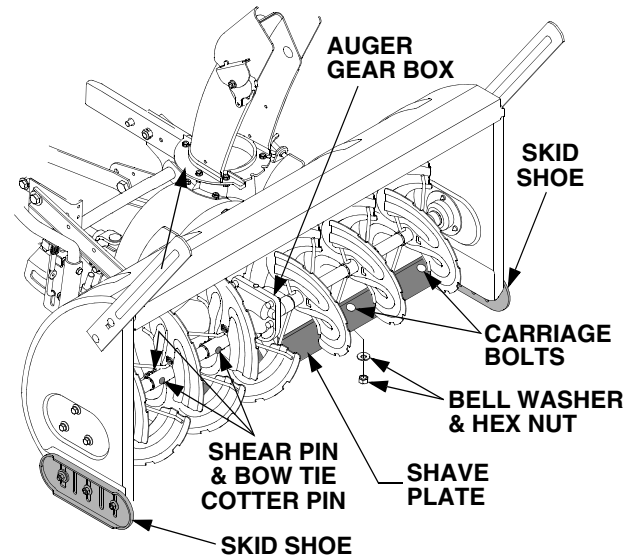


Figure 30

#### Lubrication

1. The auger gear box is lubricated with grease at the factory and is neither externally servicable, 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 servicable, 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 servicable 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.

---

## SECTION VI. ADDITIONAL ACCESSORY REQUIREMENTS

### A. 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.

### B. 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  
2500 SERIES GARDEN TRACTORS  
RESIDENTIAL AND COMMERCIAL WARRANTY**

The limited warranty set forth below is given by Cub Cadet LLC with respect to new merchandise purchased and used in the United States and/or its territories and possessions, and by MTD Products Limited with respect to new merchandise purchased 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*, and *Frame and Front Axle* 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.

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, or call 1-877-282- 8684, or log on to our Web site at [www.cubcadet.com](http://www.cubcadet.com).

**In Canada:**

Contact MTD Products Limited, Kitchener, ON N2G 4J1, or call 1-800-668-1238 or log on to our Web site 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 at P.O. Box 361131, Cleveland, Ohio 44136-0019, or call 1-877-282- 8684, or  
MTD Canada Ltd. KITCHENER, ON N2G 4J1; Phone 1-800-668-1238**