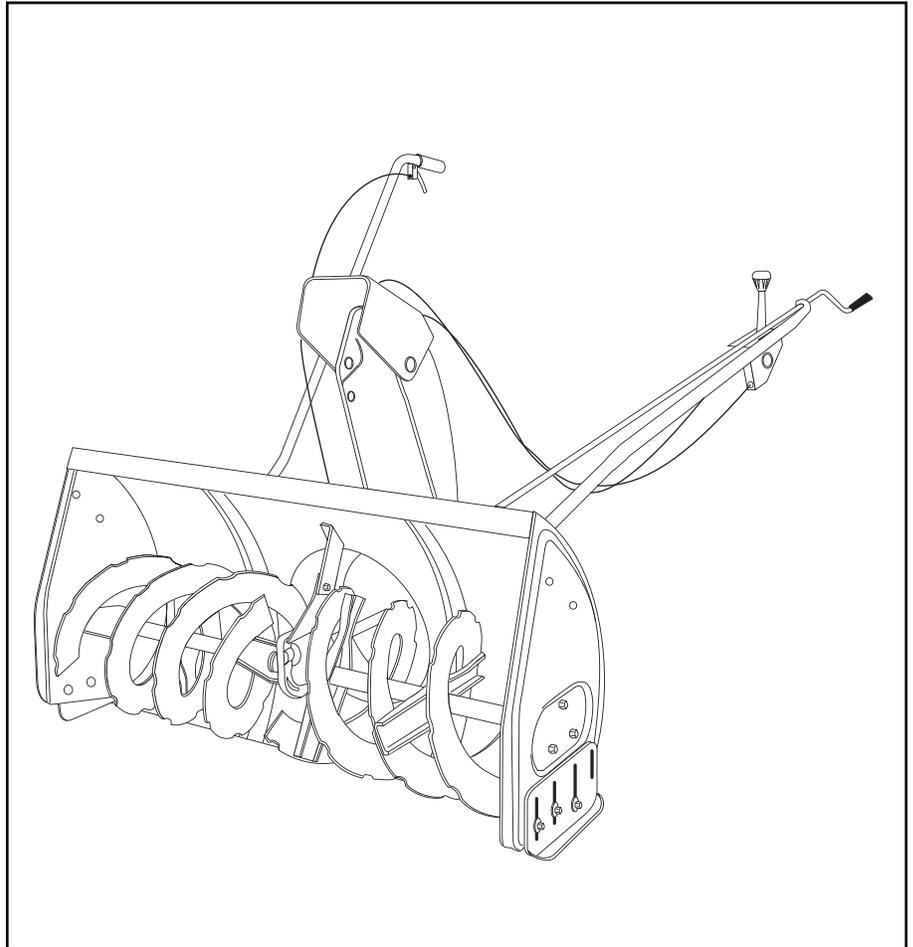




# OWNERS MANUAL

**Model No.  
LST 42A**



## 42" SNOW THROWER

**CAUTION:**  
Read Rules for  
Safe Operation  
and Instructions  
Carefully

- Safety
- Assembly
- Operation
- Maintenance
- Parts

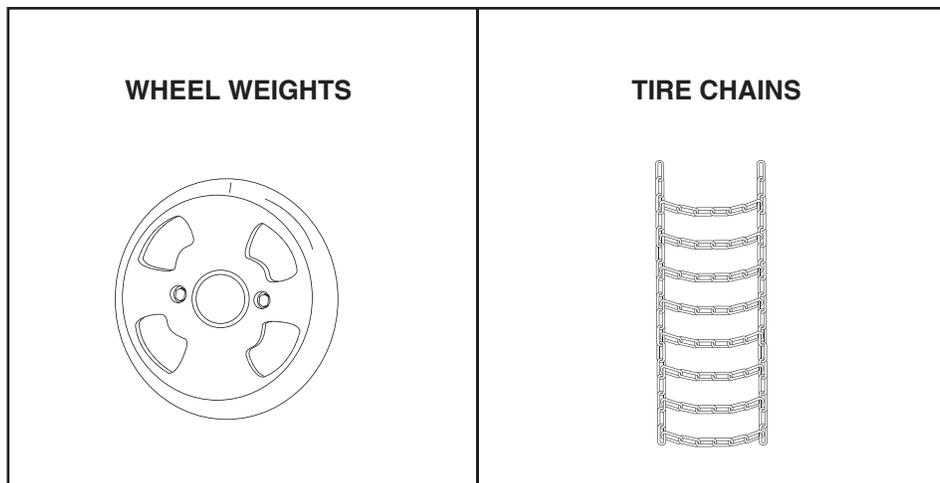
**SpeedPart** *the fastest way to purchase parts* [www.speedepart.com](http://www.speedepart.com)

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## IMPORTANT:

Rear wheel weights and tire chains are required to provide extra traction and stability when using this snow thrower attachment. These items are available where you purchased your tractor.





## SAFETY



Any power equipment can cause injury if operated improperly or if the user does not understand how to operate the equipment. Exercise caution at all times, when using power equipment.

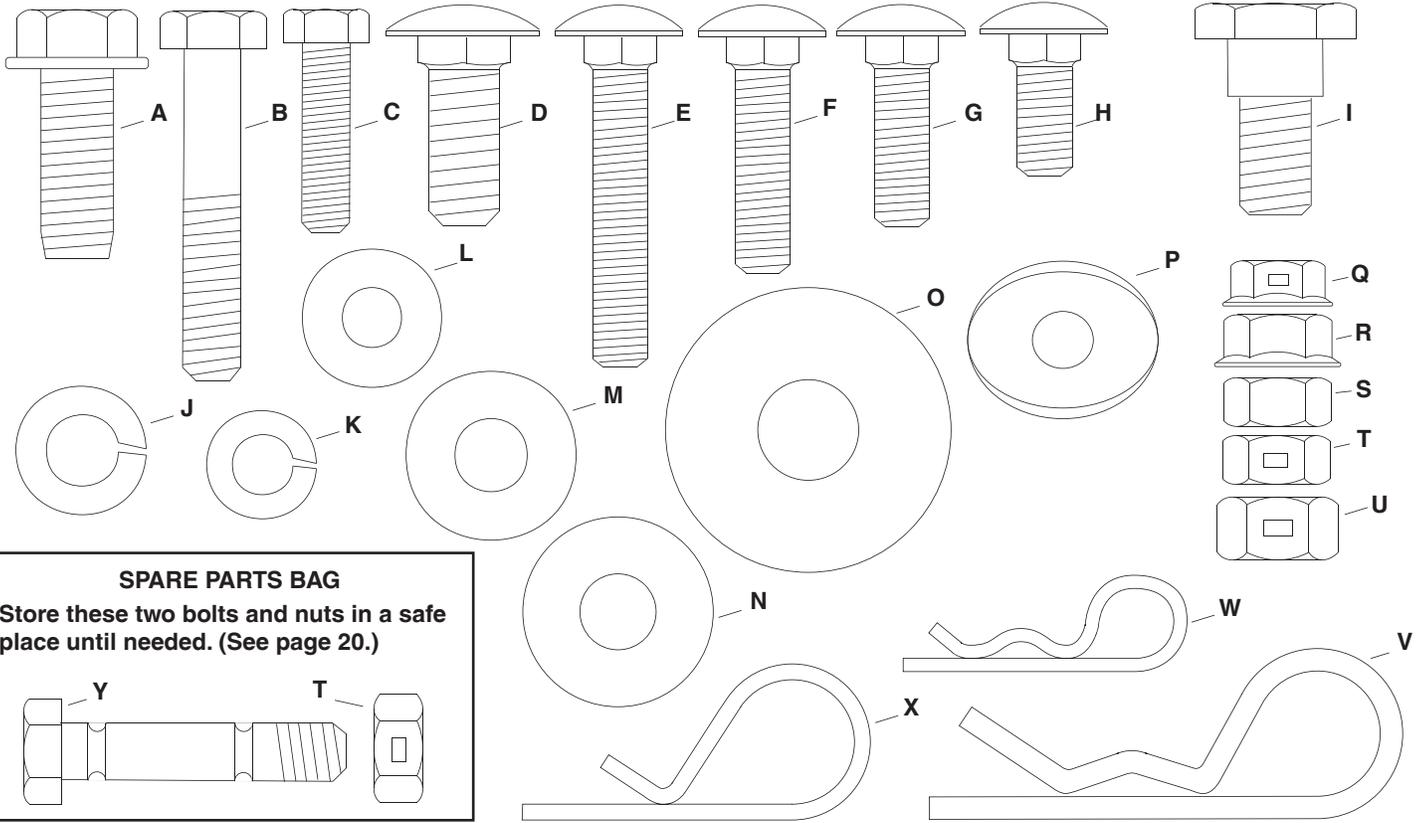
- Read this owner's manual carefully and know how to operate your snow thrower and how to stop the unit and disengage the controls quickly.
- Never allow children to operate the equipment.
- Never allow adults to operate the equipment without proper instruction.
- Keep the area of operation clear of all persons, especially small children, and pets.
- Thoroughly inspect the area where the equipment is to be used and remove all door mats, sleds, boards, wires and other foreign objects.
- Disengage all clutches and shift into neutral before starting engine.
- Do not operate equipment without wearing adequate winter outer garments.
- Wear substantial footwear which will protect feet and improve footing on slippery surfaces.
- Check fuel before starting the engine. Do not remove the fuel cap or fill the fuel tank while the engine is running or hot. Do not fill the fuel tank indoors. Gasoline is an extremely flammable fuel.
- Make sure the snow thrower height is adjusted to clear the type surface it will be used on.
- Do not use the snow thrower without the rear weight attached to the tractor.
- Never make any adjustments while the engine is running.
- Always wear safety glasses or eye shield during operation or while performing and adjustment or repair.
- Do not place hand or feet near rotating parts. Keep clear of the discharge opening at all times.
- Use extreme caution when operating on or crossing gravel surfaces.
- Do not carry passengers.
- After striking a foreign object, stop the engine, remove the wire from the spark plug and then thoroughly inspect the snow thrower for damage. Repair any damage before restarting and operating the snow thrower.
- If the snow thrower starts to vibrate abnormally, stop the engine immediately and check for the cause. Vibration is generally a warning of trouble.
- Stop the engine whenever you leave the operating position, before unclogging the snow thrower or making any adjustments or inspections.
- Take all possible precautions when leaving the unit unattended. Disengage the attachment clutch lever or switch, lower the snow thrower, shift into neutral, set the parking brake, stop the engine and remove the key.
- When cleaning, repairing or inspecting, make certain all moving parts have stopped. Disconnect the spark plug wire and keep it away from the plug to prevent accidental starting.
- Do not run engine indoors except when transporting the snow thrower in or out of the building. Open the outside doors. Exhaust fumes are dangerous.
- Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear steep slopes. Refer to the slope guide on page 27 of this manual.
- Never operate the snow thrower without guards, plates or other safety protection devices in place.
- Never operate the snow thrower near glass enclosures, automobiles, window wells, drop offs etc. without proper adjustment of the snow thrower discharge angle.
- Never direct discharge at bystanders or allow anyone in front of the snow thrower.
- Never run the snow thrower into material at high speeds.
- Do not overload the machine capacity by attempting to clear snow at too fast a rate.
- Never operate the machine at high transport speed on slippery surfaces. Look behind and use care when backing.
- Watch for traffic and stay alert when crossing or operating near roadways.
- Disengage power to the snow thrower when transporting or when not in use.
- Use only attachments and accessories approved by the manufacturer of the snow thrower (such as wheel weights, counter weights, cabs etc.)
- Never operate the snow thrower without good visibility or light.



Look for this symbol to point out important safety precautions. It means — **Attention!! Become alert!! Your safety is involved.**

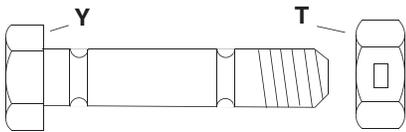
# HARDWARE PACKAGE CONTENTS

## SHOWN ACTUAL SIZE

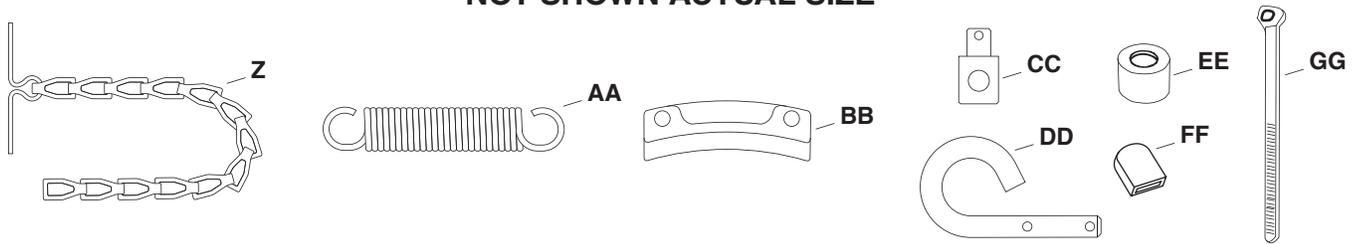


**SPARE PARTS BAG**

Store these two bolts and nuts in a safe place until needed. (See page 20.)



## NOT SHOWN ACTUAL SIZE

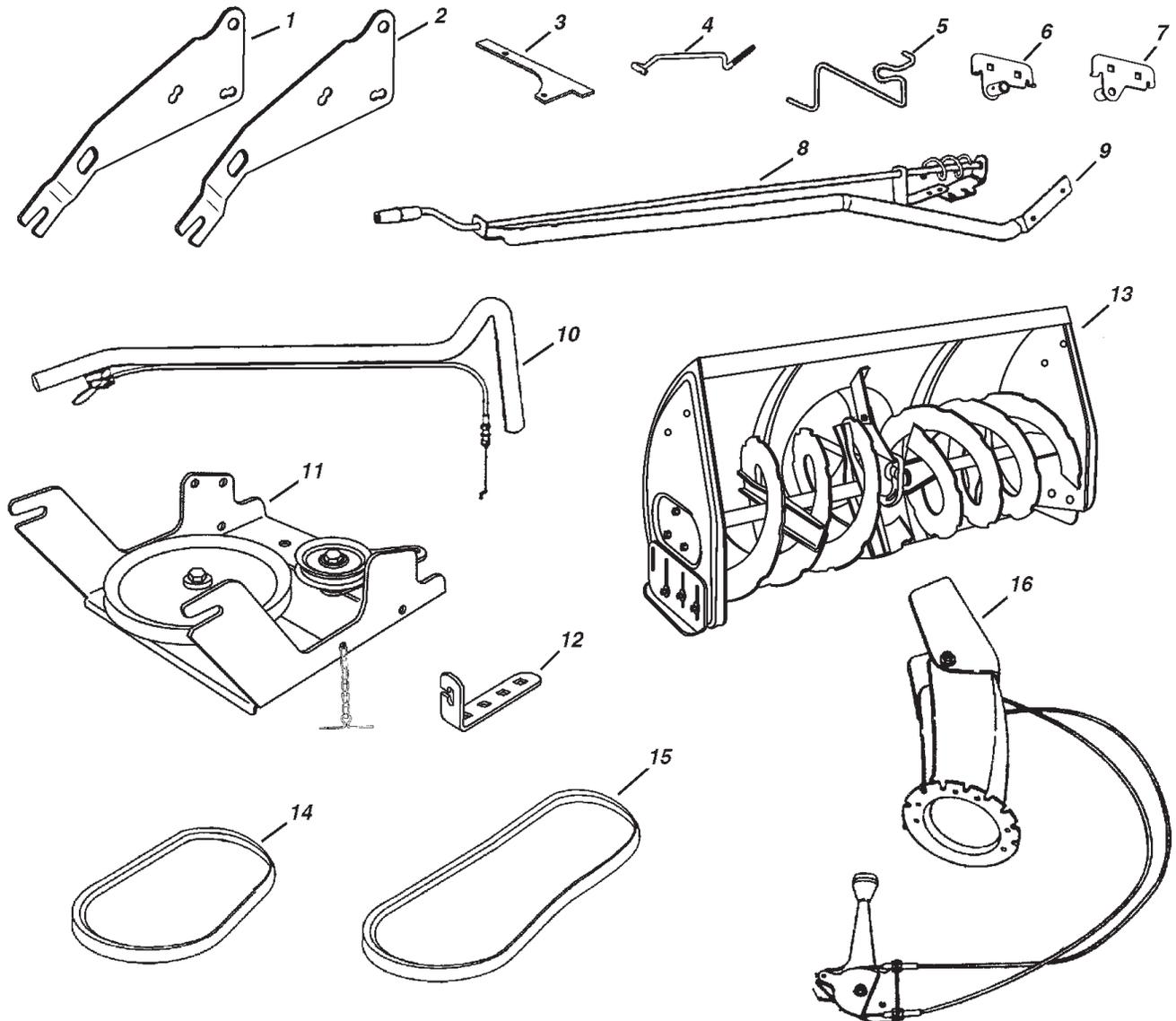


REF.	QTY.	DESCRIPTION	REF.	QTY.	DESCRIPTION
A	4	Hex Bolt, 3/8" x 1" (Thread Forming)	Q	6	Hex Lock Nut, 1/4"
B	2	Hex Bolt, 5/16" x 1-3/4"	R	1	Whizlock Nut, 5/16"
C	6	Hex Bolt, 1/4" x 1"	S	8	Hex Nut, 5/16"
D	4	Carriage Bolt, 3/8" x 1"	T	4	Hex Lock Nut, 5/16" (2 pcs. spare parts)
E	2	Carriage Bolt, 5/16" x 1-3/4"	U	9	Hex Lock Nut, 3/8"
F	2	Carriage Bolt, 5/16" x 1-1/4"	V	3	Hairpin Cotter, 1/8"
G	2	Carriage Bolt, 5/16" x 1"	W	3	Hairpin Cotter, 5/64"
H	2	Carriage Bolt, 5/16" x 3/4"	X	1	Hairpin Cotter, 3/32"
I	4	Shoulder Bolt, 3/8" x 5/8"	Y	2	Shear Bolt (spare parts)
J	10	Lock Washer, 3/8"	Z	1	Chain, Tensioning
K	10	Lock Washer, 5/16"	AA	1	Spring
L	7	Washer, 1/4"	BB	3	Chute Keeper
M	2	Washer, 5/16"	CC	1	Trunnion
N	1	Washer, 3/8"	DD	2	Lock Pin
O	2	Washer, 1/2"	EE	1	Spacer
P	2	Bowed Washer	FF	1	Plastic Cap
			GG	2	Nylon Tie

# ASSEMBLY

## CARTON CONTENTS

1. Right Hand Side Plate (Stamped "R")
2. Left Hand Side Plate (Stamped "L")
3. Anti-rotation Bracket
4. Engagement Rod
5. Engine Pulley Keeper
6. Left Hand Hanger Bracket (Stamped "L")
7. Right Hand Hanger Bracket (Stamped "R")
8. Chute Crank Rod Assembly
9. Support Tube, Crank Rod
10. Lift Handle Tube and Cable
11. Clutch Idler Assembly
12. Cable Bracket
13. Housing Assembly
14. V Belt, Drive
15. V Belt, Auger (Attached to Housing Assembly)
16. Chute and Control Cable Assembly  
Hardware Package (Stored inside Plastic Keg)



## TOOLS REQUIRED FOR ASSEMBLY

- (2) 7/16" Wrenches
- (2) 1/2" Wrenches
- (2) 9/16" Wrenches
- (2) 3/4" Wrenches
- (1) Knife

## ADDITIONAL ITEMS REQUIRED

General Purpose Grease

## REMOVAL OF PARTS FROM CARTON

1. Remove all parts and hardware packages from the carton. Lay out parts and hardware and identify using the illustrations on pages 4 and 5.

**NOTE:** Not all of the supplied parts and hardware will be needed for your particular tractor. Unneeded items may be discarded after you have completed assembly.



**CAUTION:** Before starting to assemble the snow thrower, remove the spark plug wire(s), set the parking brake and remove the key from the tractor ignition.

## TRACTOR PREPARATION

Before performing these instructions, refer to the Service and Adjustments section of your tractor owner's manual for specific safety instructions.

1. Allow engine, muffler and exhaust deflector to cool before beginning.
2. Remove any front or rear attachment which is mounted to your tractor.
3. Remove the mower deck. Refer to your tractor owner's manual for removal instructions. Mark all loose parts and save for re-assembly.
4. Remove the tractor hood and grill assembly. Refer to your tractor owner's manual for removal instructions.

## ITEMS REMOVED FROM TRACTOR

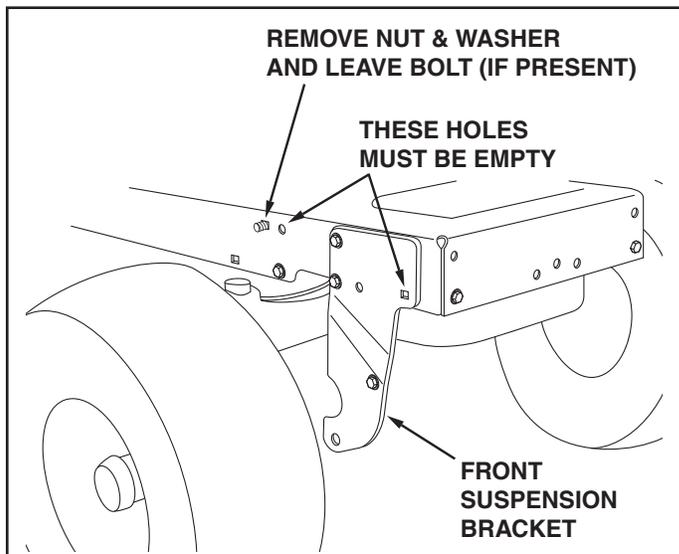
1. Store all tractor parts that you remove and do not need to re-use to assemble the snow thrower.

## INSTALLING SIDE PLATES ON TRACTOR

Right hand (R.H.) and left hand (L.H.) side of the tractor are determined from the operators position while seated on the tractor.

**TRACTORS WITH FRAME MOUNTED FRONT SUSPENSION BRACKETS** (See page 7 for tractors with axle mounted front suspension brackets.)

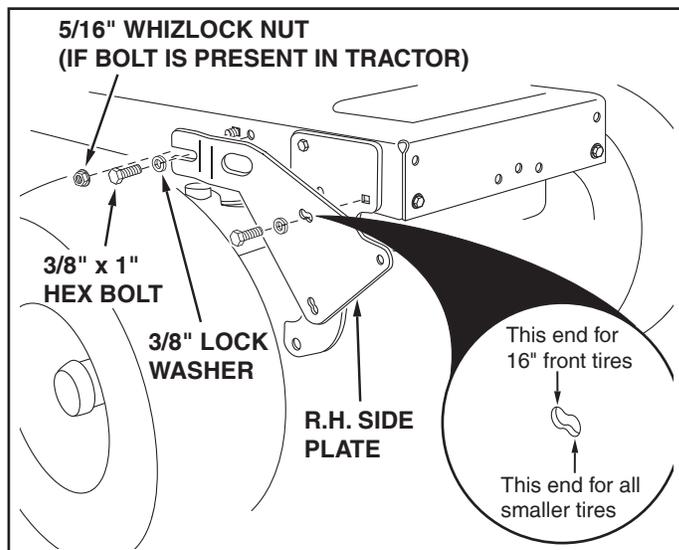
1. Remove any bolts that are present in the two holes shown as empty in figure 1.
2. If there is a bolt in the third hole shown in figure 1, remove the nut and washer but leave the bolt in place.



**FIGURE 1** **RIGHT SIDE VIEW**

3. Assemble the R.H. Side Plate (marked "R") to the two now empty holes in the side of the tractor frame. Use two 3/8" x 1" hex bolts and 3/8" lock washers as shown in figure 2. Repeat for the L.H. side.
4. If you removed a nut and washer from the bolt in figure 1, assemble a whizlock nut onto the bolt.

**NOTE:** If you remove the side plates, be sure to reassemble all bolts to tractor frame .



**FIGURE 2** **RIGHT SIDE VIEW**

- Assemble a shoulder bolt, a 3/8" lock washer and a 3/8" hex lock nut to the bottom hole in each side plate. See figure 3.
- Proceed to page 8.

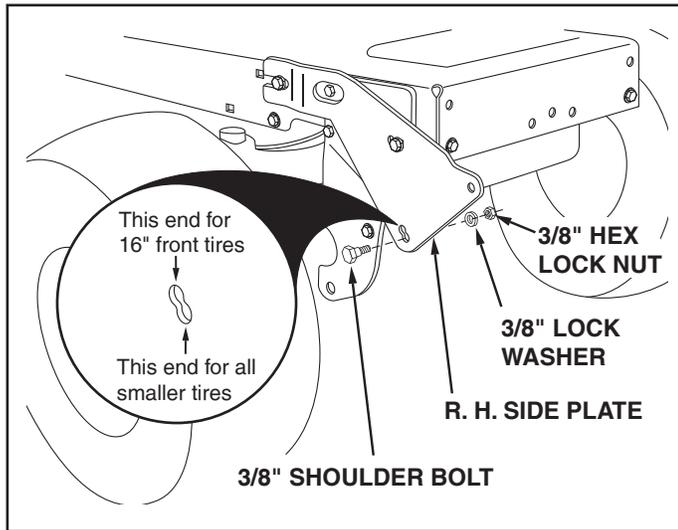


FIGURE 3 RIGHT SIDE VIEW

- Attach the R.H. Side Plate (marked "R") to the right side of the tractor frame as shown in figure 5. For the front hole use a 3/8" x 1" hex bolt, a 3/8" lock washer, and a 1/2" flat washer. Use the flat washer as a shim between the frame and the side plate. For the rear hole use a 3/8" x 1" hex bolt, and a 3/8" lock washer. Repeat for the L.H. side.

**NOTE:** If the bolt inserts freely into the front hole, the 3/8" lock washer along with a 3/8" hex lock nut must be assembled onto the bolt from inside the tractor frame.

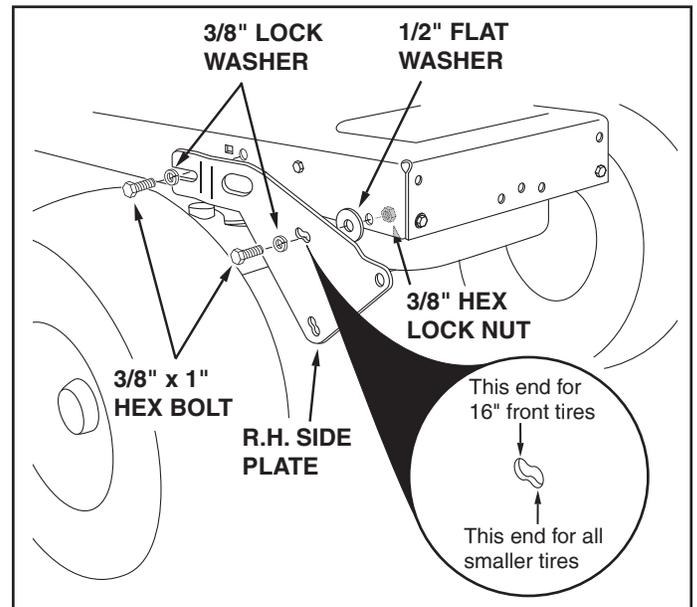


FIGURE 5 RIGHT SIDE VIEW

### TRACTORS WITH AXLE MOUNTED FRONT SUSPENSION BRACKETS

- Remove any bolts present in the holes shown in figure 4 on both sides of the tractor frame.

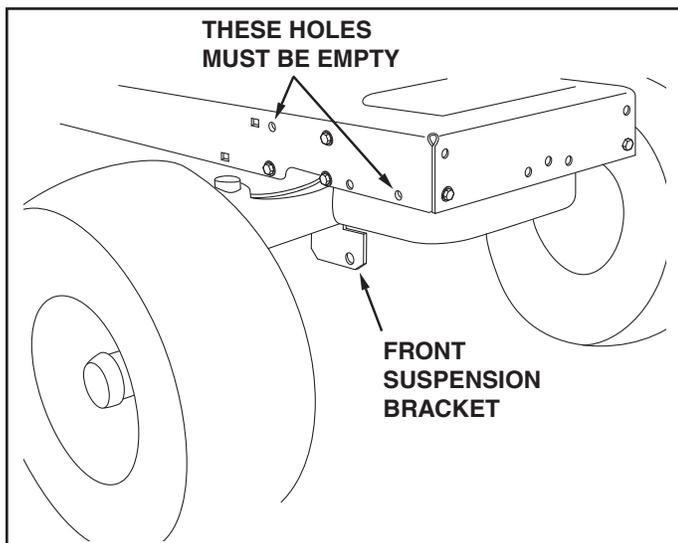


FIGURE 4 RIGHT SIDE VIEW

- Assemble a shoulder bolt, a 3/8" lock washer and a 3/8" hex lock nut to the bottom hole in each side plate. See figure 6.

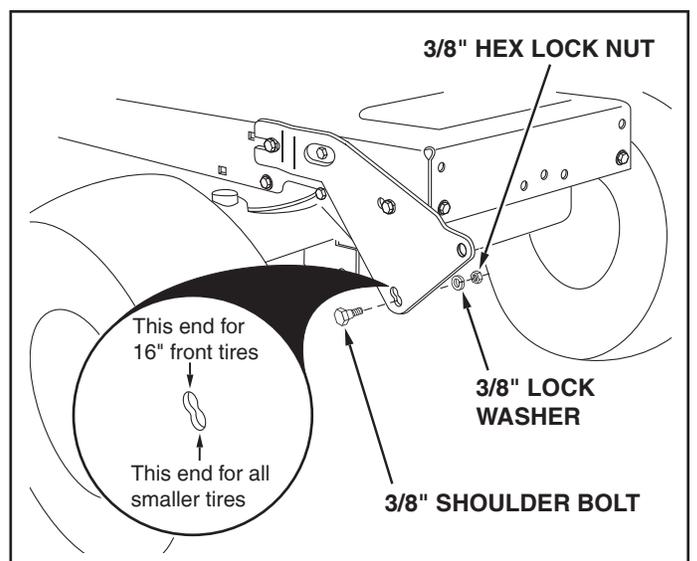


FIGURE 6 RIGHT SIDE VIEW

## INSTALLING HANGER BRACKETS

For better clearance, lower the tractor's suspension arms using the attachment lift lever.

### On Tractors With Foot Rest Brackets (Figure 7)

1. Remove the bolt and nut that fasten the L.H. and R.H. foot rest brackets to the frame. See figure 7.
2. Attach the L.H. Hanger Bracket (marked "L") to the inside of the tractor frame using two 3/8" x 1" carriage bolts, 3/8" lock washers and 3/8" hex lock nuts. The bolt heads go on the inside of the tractor frame. Repeat for the R.H. side. See figure 7.

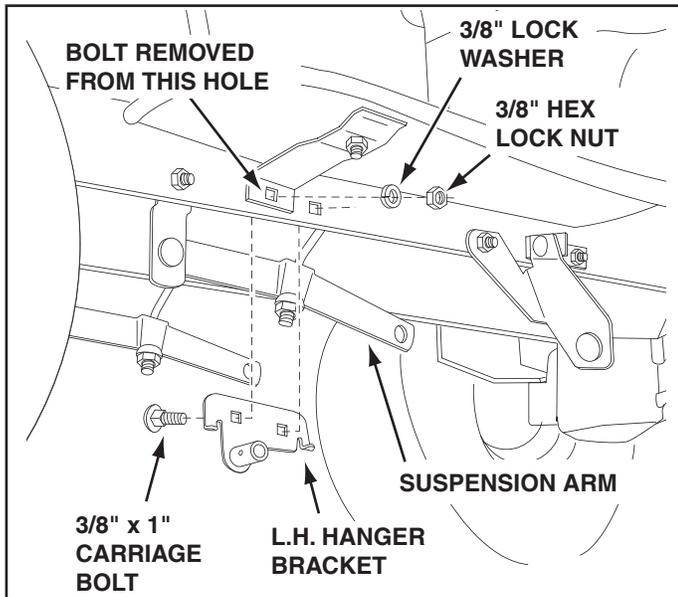


FIGURE 7 LEFT SIDE VIEW

### On Tractors Without Foot Rest Brackets (Figure 8)

3. Find the empty hole beneath the foot rest. Attach the L.H. Hanger Bracket (marked "L") to the inside of the frame using a 3/8" x 1" carriage bolt (head to inside), a 3/8" lock washer and a 3/8" hex lock nut. See figure 8. Repeat for the R.H. side.

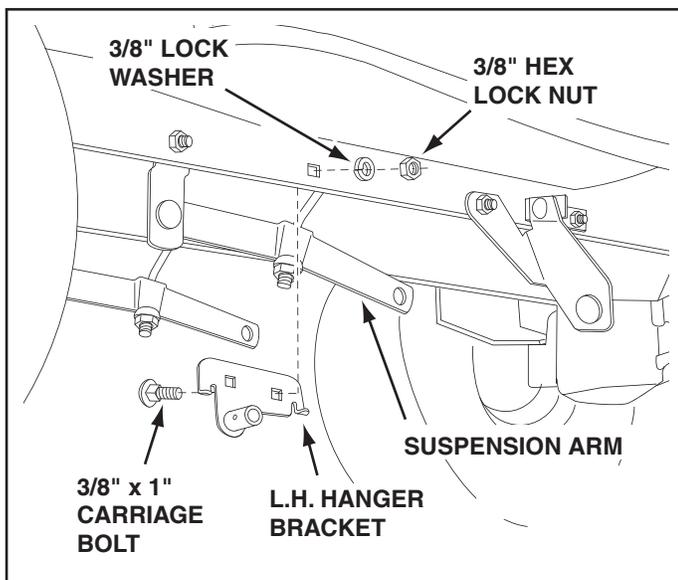


FIGURE 8 LEFT SIDE VIEW

## INSTALLING SHOULDER BOLTS

### All Tractors

1. Remove the bolt, washer and nut which fasten the sway bar bracket to the L.H. side of the tractor frame. Replace with a shoulder bolt and a 3/8" hex lock nut as shown in figure 9.

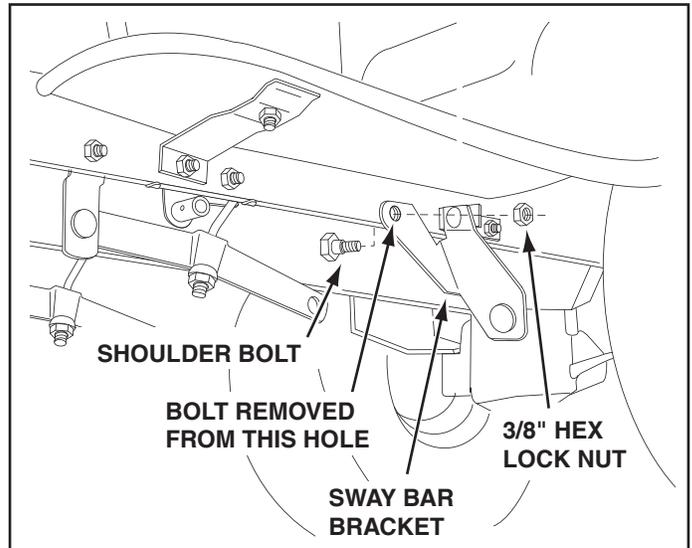


FIGURE 9 LEFT SIDE VIEW

2. Assemble a shoulder bolt and 3/8" hex lock nut to the R.H. side of the tractor frame, using the first empty hole to the rear of the R.H. hanger bracket. See figure 10.

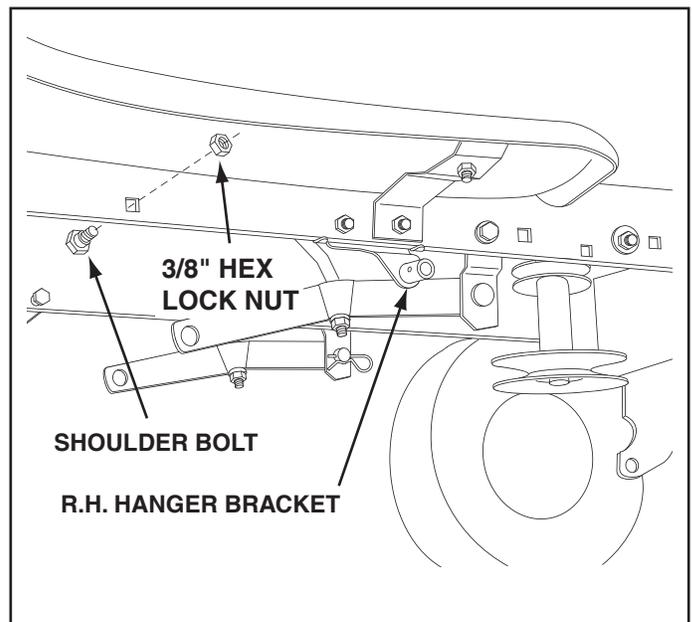


FIGURE 10 RIGHT SIDE VIEW

## INSTALLING CLUTCH/IDLER ASSEMBLY

This section covers the installation of the Clutch/Idler assembly to tractors with attachment clutches that are either rod operated (p. 9), cable operated (p. 10) or electric (p. 12). Use the appropriate instructions for your tractor.

### MANUAL (ROD OPERATED) ATTACHMENT CLUTCH

1. Move the attachment clutch lever on the dash panel to the disengaged (down) position.
2. Screw the trunnion onto the end of the snow thrower engagement rod as shown in figure 11.
3. Locate the clutch arm (where the mower clutch rod was connected) underneath the right hand side the tractor, just to the inside of the suspension arm. **If there is an extension** attached to the clutch lever, the extension, bolt and nut must be removed and stored with the mower deck.

**IMPORTANT: Re-attach the extension** to the clutch lever before reinstalling the mower deck.

4. Position the engagement rod to the inside of the clutch arm and insert the drilled end of the rod through the arm. Secure with a 5/64" hairpin cotter. See figure 11.

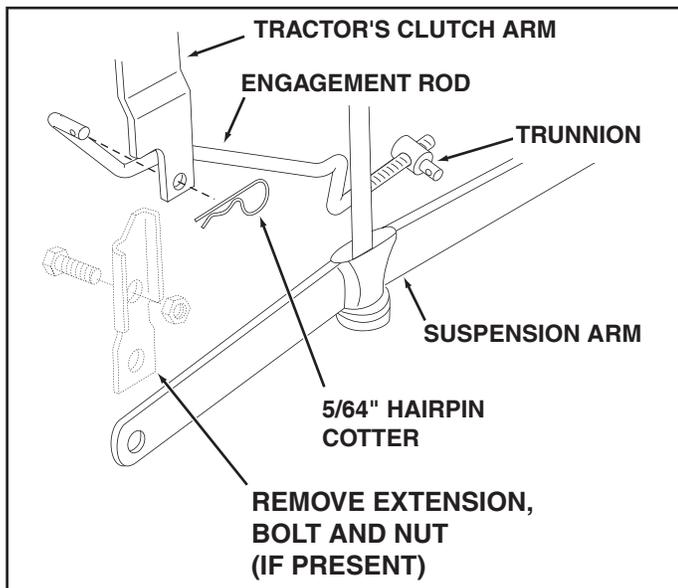


FIGURE 11 RIGHT SIDE VIEW

5. Be sure to lift up the front end of the engagement rod (as shown in figure 12) when performing the next operation. You can temporarily support the rod using a rubber band tied to the engine pulley keeper.
6. Attach the clutch/idler assembly to the tractor frame as follows. Hook the assembly's notched arms onto the two shoulder bolts you assembled to the inside of the tractor frame. Lift the front of the assembly and attach it to the R.H. and L.H. hanger brackets using two pivot lock pins and 1/8" hairpin cotters. See figure 12.

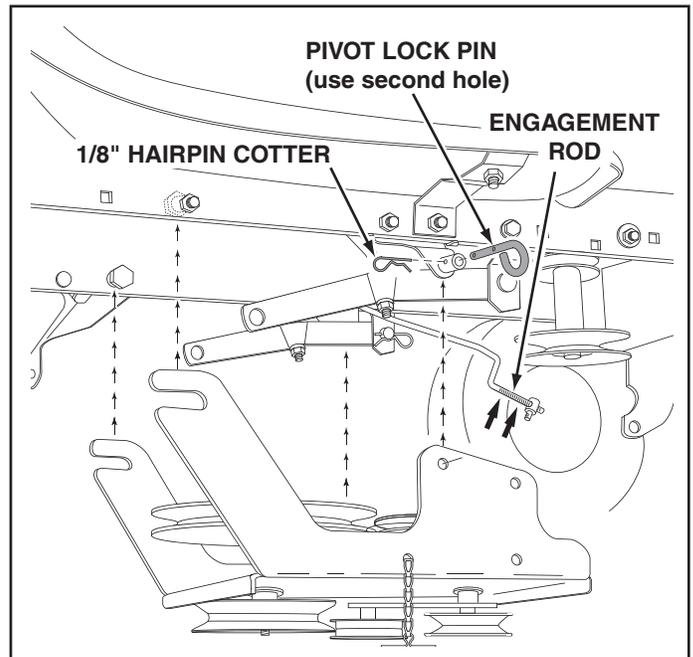


FIGURE 12 RIGHT SIDE VIEW

7. Make sure the attachment clutch lever on the dash panel is in the disengaged (down) position.
8. Pivot the upper idler arm so that it rests against the stop bolt and is pointing toward the front as shown in figure 13. Screw the trunnion along the threads of the engagement rod until it is aligned at the front end of the idler arm slot. Attach the trunnion to the slot using the 3/8" flat washer and a 5/64" hairpin cotter. See figure 13.
9. Remove the engine pulley keeper from the side of the tractor frame by removing the washer and nut that secure the keeper. Attach the new pulley keeper supplied with the snow thrower, reusing the original bolt, washer and nut. See figure 13.

**NOTE:** Some tractors may already be equipped with an identical pulley keeper.

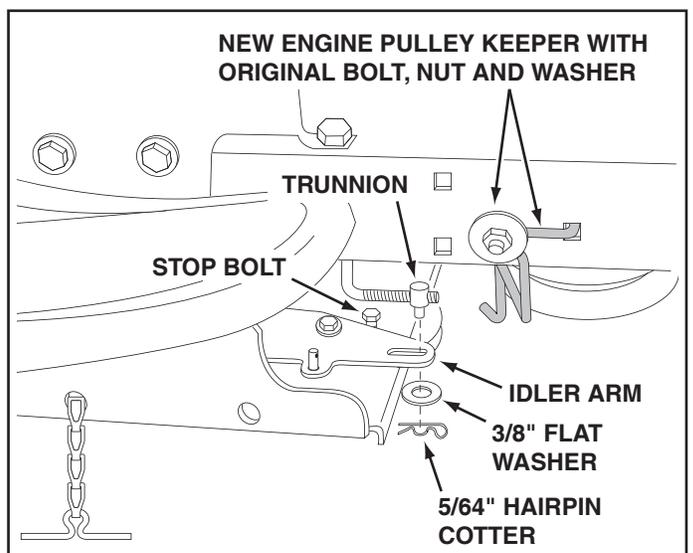
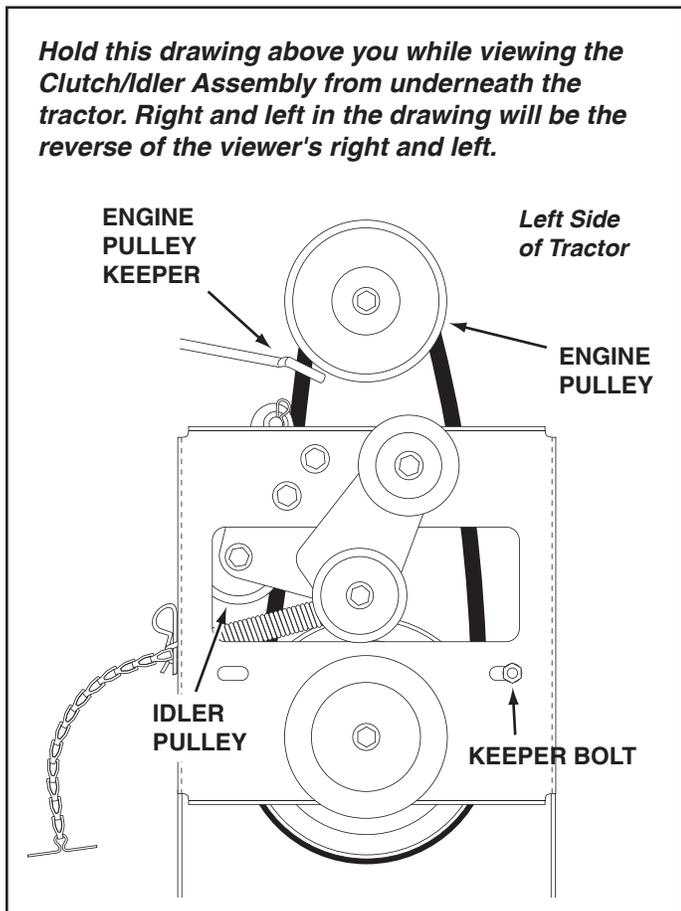


FIGURE 13 RIGHT SIDE VIEW

- Assemble the short "V" belt onto the engine pulley and then onto the large pulley on top of the clutch/idler assembly. The belt must be placed to the inside of the engine pulley keeper, the idler pulley and the keeper bolt located beside the large pulley. See figure 14.

**IMPORTANT: Do Not** assemble the "V" belt around the outside of the engine pulley keeper or the keeper bolt.

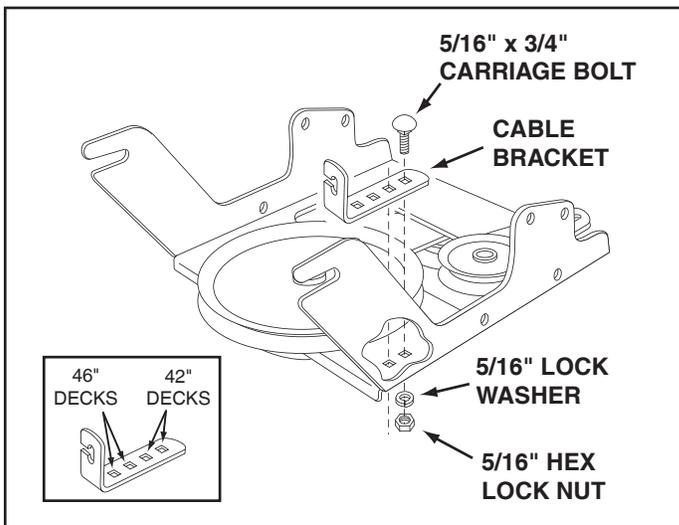


**FIGURE 14** VIEWED FROM UNDERNEATH

- Proceed to page 13.

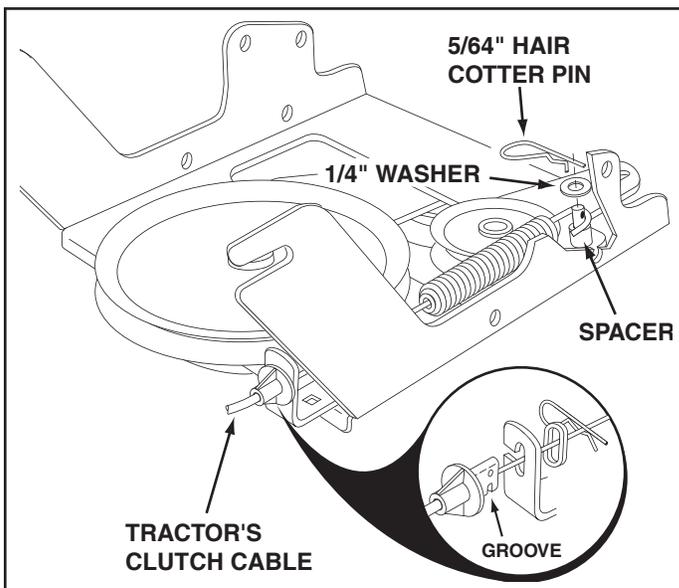
## CABLE OPERATED ATTACHMENT CLUTCHES

- Assemble the cable bracket to the clutch/idler assembly using two 5/16" x 3/4" carriage bolts, 5/16" lock washers and 5/16" hex locknuts. Use the two front holes in the cable bracket if your tractor has a 42" mower deck. Use the two rear holes if your tractor has a 46" mower deck. See figure 15.



**FIGURE 15**

- Move the attachment clutch lever on the dash panel to the disengaged (down) position.
- Lay the clutch/idler assembly beneath the tractor.
- Attach the tractor's clutch cable to the cable bracket. Secure the cable housing guide (groove down) to the cable bracket using the original collar and retainer spring removed from the mower deck. See figure 16.
- Place a spacer on the welded pin on the idler arm. Hook the end of the clutch spring over the pin and secure it with a 1/4" washer and a 5/64" hair cotter pin. See figure 16.

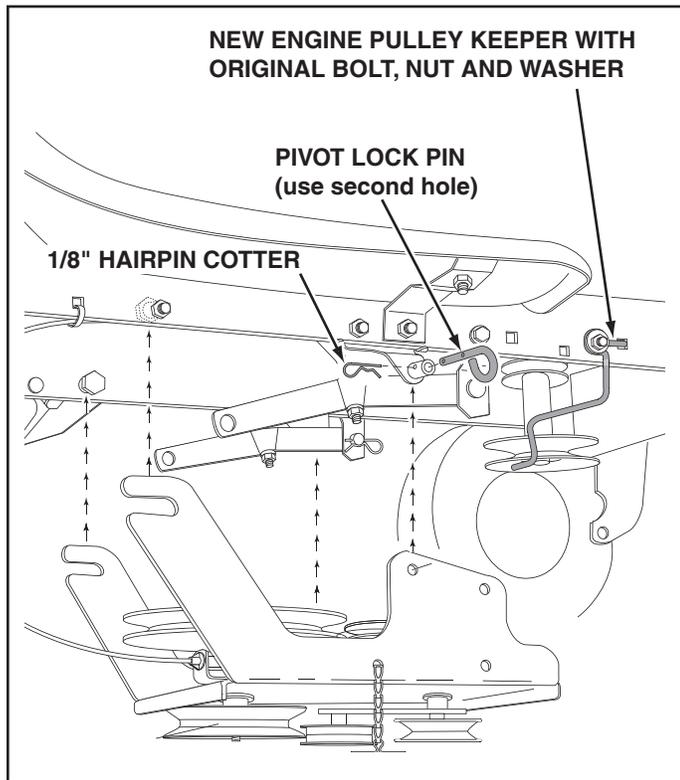


**FIGURE 16**

- Remove the engine pulley keeper from the side of the tractor frame by removing the washer and nut that secure the keeper. Attach the new pulley keeper supplied with the snow thrower, reusing the original bolt, washer and nut. See figure 17.

**NOTE:** Some tractors may already be equipped with an identical pulley keeper.

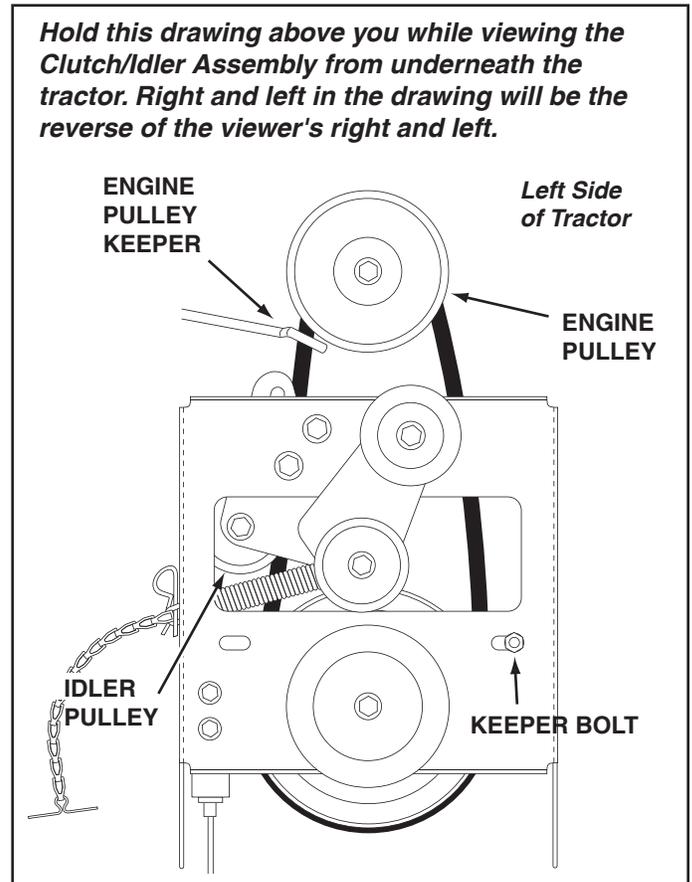
- Attach the clutch/idler assembly to the tractor frame as follows. Hook the assembly's notched arms onto the two shoulder bolts you assembled to the inside of the tractor frame. Lift the front of the assembly and attach it to the R.H. and L.H. hanger brackets using two pivot lock pins and 1/8" hairpin cotters. See figure 17.



**FIGURE 17**

- Assemble the short "V" belt onto the engine pulley and then onto the large pulley on top of the clutch/idler assembly. The belt must be placed to the inside of the engine pulley keeper, the idler pulley and the keeper bolt located beside the large pulley. See figure 18.

**IMPORTANT:** Do Not assemble the "V" belt around the outside of the engine pulley keeper or the keeper bolt.



**FIGURE 18**

**VIEWED FROM UNDERNEATH**

- Proceed to page 13.

## ELECTRIC ATTACHMENT CLUTCHES

1. Turn the clutch/idler assembly upside down and place the extra tensioning chain through the left front hole as shown in figure 19.

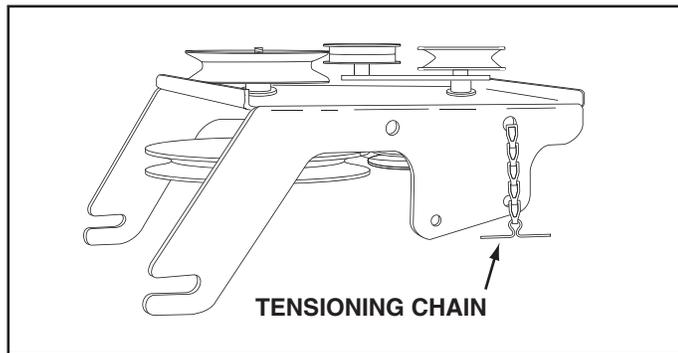


FIGURE 19

2. Hook the loose spring through the end of the tensioning chain. See figure 20.
3. Hook the other end of the spring onto the bottom of the bolt and nut which secure the idler pulley to the upper idler arm. Hold the bolt head and assemble a 3/8" hex lock nut onto the bolt, leaving it loose enough for the spring to pivot freely between the two nuts. See figure 20.
4. Attach a 3/32" hairpin cotter to the chain, placing it in the fifth link from the spring. See figure 20.

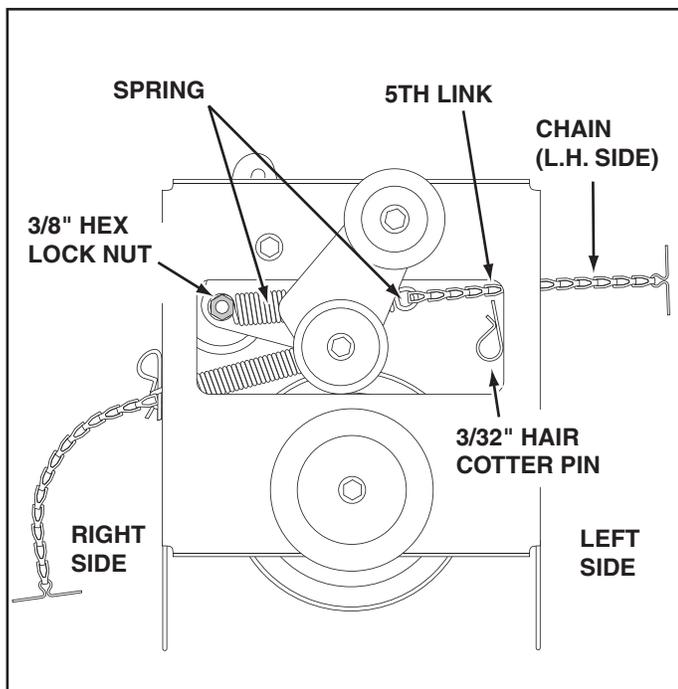


FIGURE 20

VIEW OF BOTTOM

5. Attach the clutch/idler assembly to the tractor frame as follows. Hook the assembly's notched arms onto the two shoulder bolts you assembled to the inside of the tractor frame. Lift the front of the assembly and attach it to the R.H. and L.H. hanger brackets using two pivot lock pins and 1/8" hairpin cotters. See figure 21.

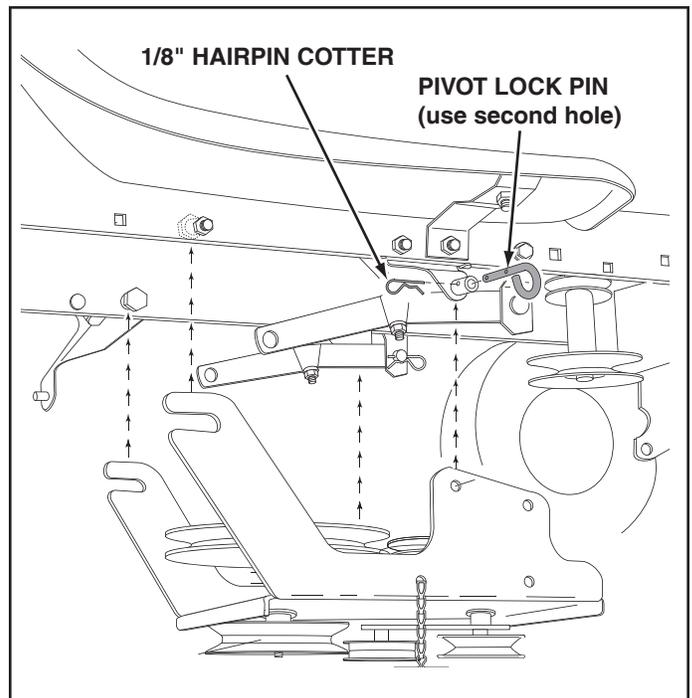


FIGURE 21

RIGHT SIDE VIEW

- Assemble the short "V" belt onto the engine pulley and then onto the large pulley on top of the clutch/idler assembly. The belt must be placed to the inside of the engine pulley keeper, the idler pulley and the keeper bolt located beside the large pulley. See figure 22.
- Place tension on the belt by pulling the left side tensioning chain out as far as the 5/64" hairpin cotter will allow. Secure the chain in this position by inserting a 1/8" hairpin cotter through the chain. See figure 22.

**IMPORTANT:** Do Not assemble the "V" belt around the outside of the engine pulley keeper or the keeper bolt.

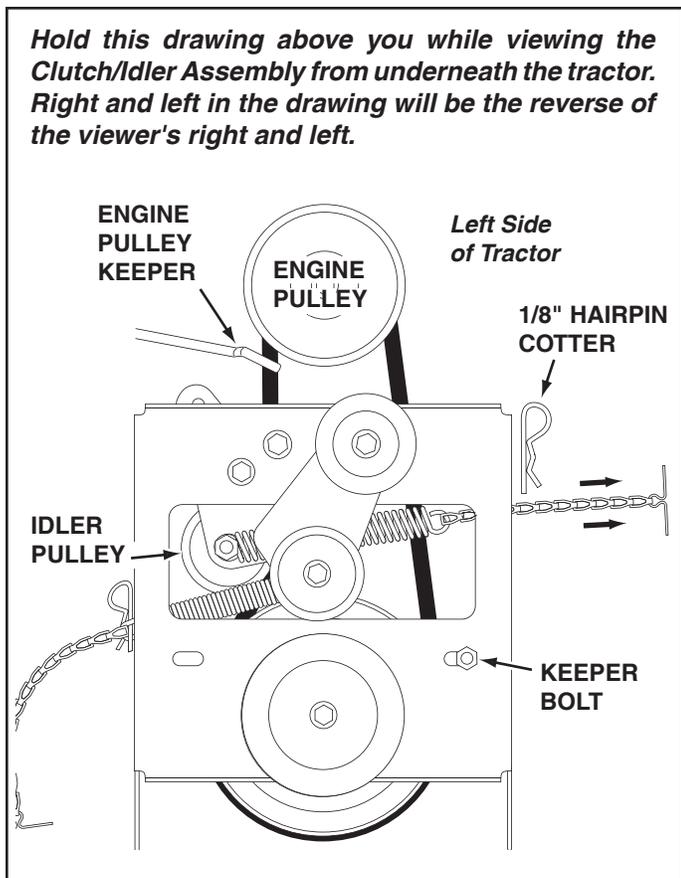


FIGURE 22 VIEWED FROM UNDERNEATH

## ASSEMBLY OF THE SNOW THROWER

- Place the lift handle into the lift bracket on the right side of the snow thrower. Fasten the handle to the bracket using two 5/16" x 1-3/4" hex bolts, 5/16" lock washers and 5/16" hex nuts. See figure 23.

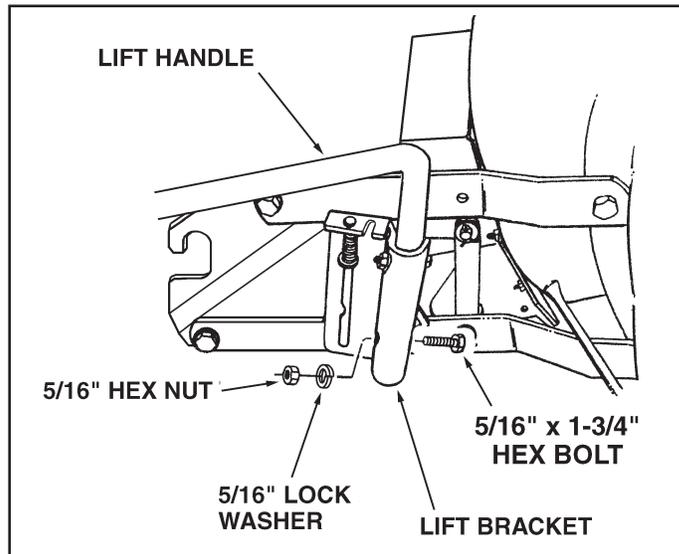


FIGURE 23 RIGHT SIDE VIEW

**NOTE:** Be sure the lift release cable's plastic covering remains inserted into the trigger assembly while performing the next step.

- Push the lift handle down into the locked position. Insert the end of the cable wire into the hole in the lift rod. Place the threaded fitting into the slot in the lift bracket, with one hex nut above and one hex nut and the lock washer below the slot. Tighten the nuts, adjusting them to eliminate slack in the cable wire. See figure 24. Refer also to the Service and Adjustments section on page 20 in this manual.

**HINT:** For easier assembly of the lift release cable, tilt the snow thrower forward onto the spiral auger.

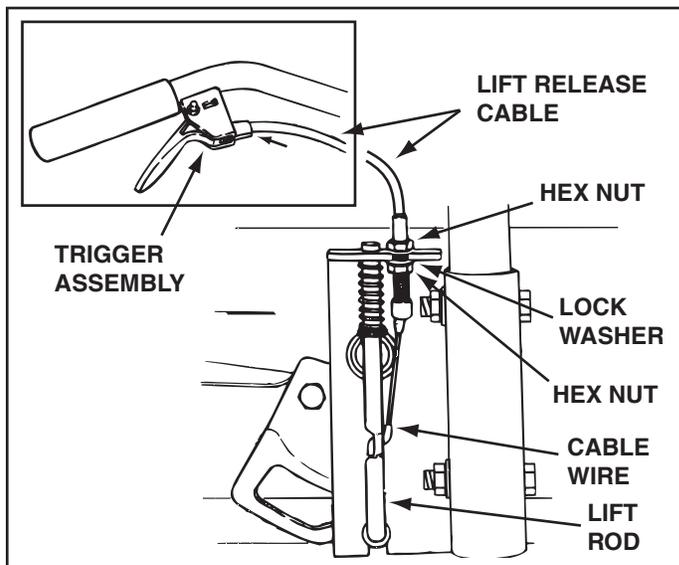


FIGURE 24 RIGHT SIDE VIEW

- Tilt the snow thrower back down to the ground.
- Remove the nylon tie which fastens the auger drive belt to the discharge housing, leaving the belt assembled around the pulleys.
- Remove the nylon tie which fastens the chute crank rod to the crank rod support tube.
- Assemble the crank rod support tube to the bracket on the left side of the thrower housing using two 5/16" x 1-1/4" carriage bolts, 5/16" lock washers and 5/16" hex nuts. See figure 25.

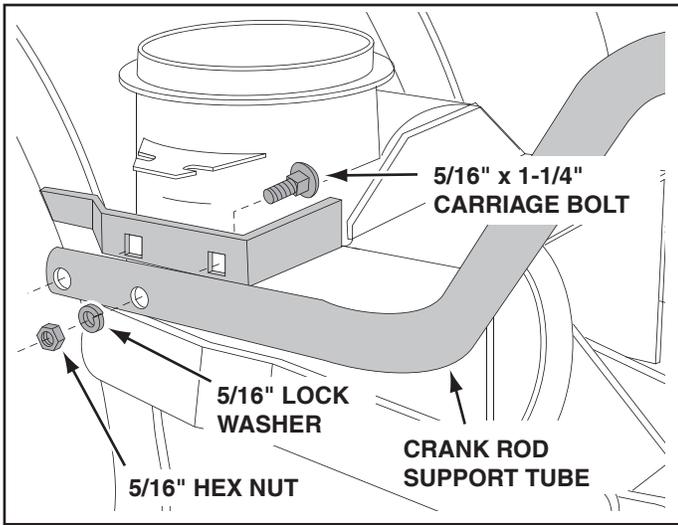


FIGURE 25 LEFT SIDE VIEW

- Attach the chute tilt control assembly to the top side of the crank support tube using two 5/16" x 1-3/4" carriage bolts, bowed washers, 5/16" lock washers and 5/16" hex nuts. See figure 26.

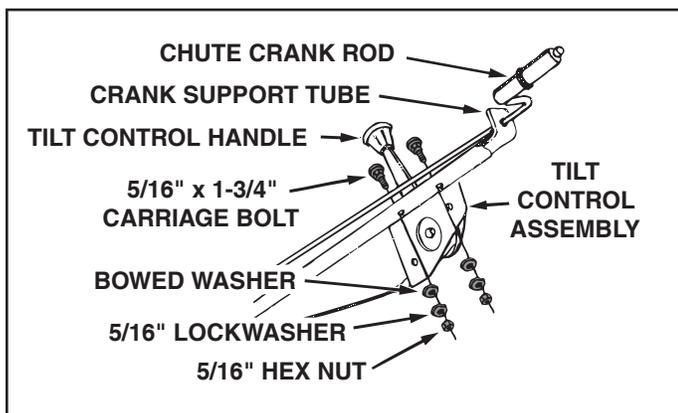


FIGURE 26 LEFT SIDE VIEW

- Attach the chute crank rod assembly brackets to the plastic bracket on the left side of the thrower housing. Align the chute crank bracket beneath the rod support bracket and assemble both to the plastic bracket using two 5/16" x 1" carriage bolts, 5/16" flat washers, 5/16" lock washers and 5/16" hex nuts. **Do not tighten yet.** See figure 27.

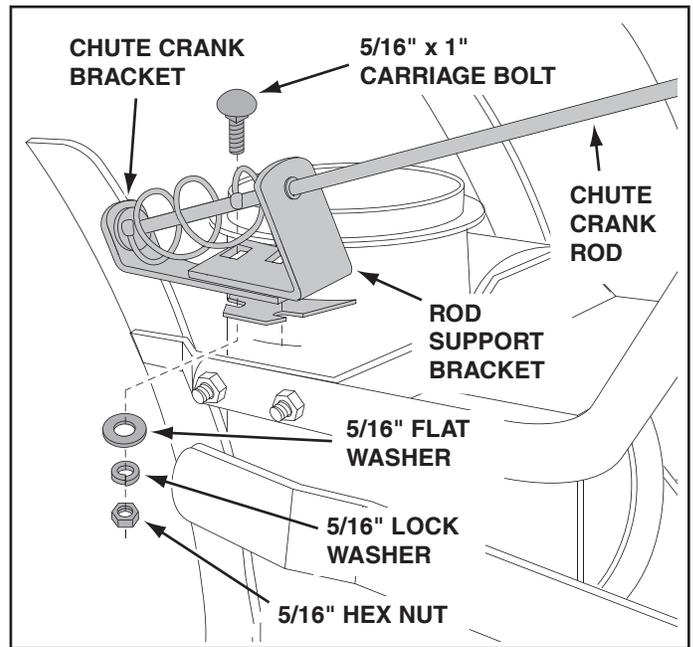


FIGURE 27 LEFT SIDE VIEW

- Coat the top of the ring around the discharge opening with general purpose grease. See figure 28.
- Place the discharge chute (facing forward) onto the ring. Place the anti-rotation bracket on top of the chute flange, aligning it with the holes on the right hand side of the flange. Attach the three chute keepers (right side up as shown) to the bottom of the flange using six 1/4" x 1" hex bolts, 1/4" flat washers and 1/4" hex lock nuts. **Tighten carefully** so that the nuts are snug but do not dig into the plastic chute keepers. See figure 28.
- Place the plastic cap onto the short end of the anti-rotation bracket. See figure 28.
- Position the crank rod spiral so that it does not rub against the bottoms of the notches in the chute flange. **Tighten** the nuts. See figure 27.
- Check if the crank rod rotates the chute freely. If not, loosen by 1/4 turn each of the six hex bolts holding the chute keepers to the chute flange.
- Secure the control cables to the crank rod support tube using a nylon tie.

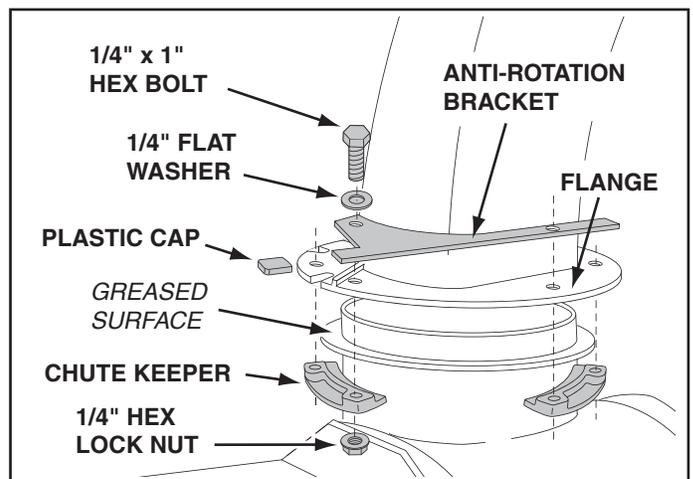
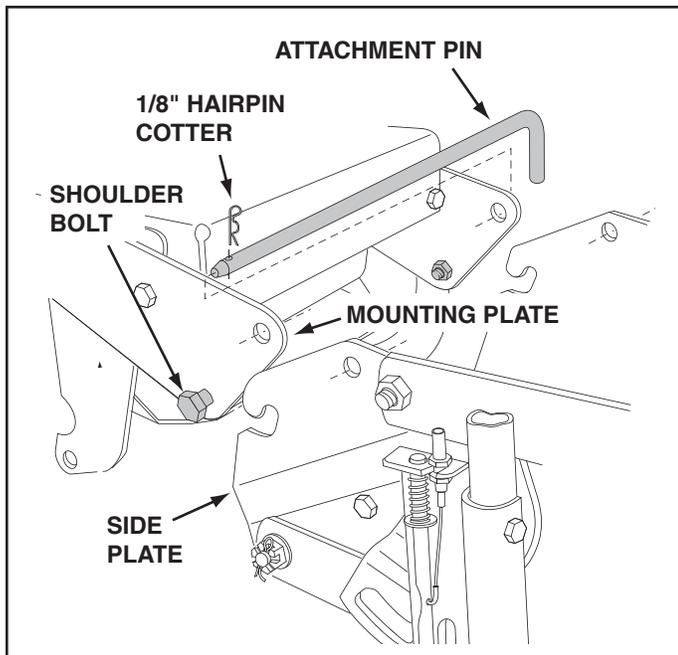


FIGURE 28 RIGHT SIDE VIEW

## ATTACHING SNOW THROWER TO TRACTOR

**NOTE:** An additional person's help may be required to mount the snow thrower to the front of the tractor.

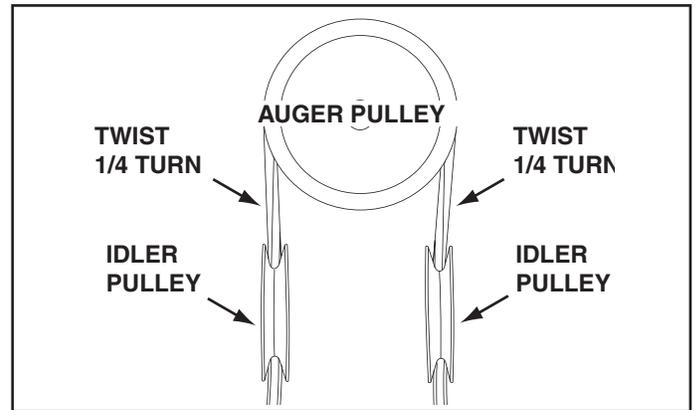
1. Place the tractor and snow thrower on a flat, level surface so that the tractor can be rolled forward to attach the snow blower.
2. Remove the Attachment Pin from the snow thrower.
3. Extend the belt out behind the snow thrower, making sure the belt is still looped over the top of the large drive pulley and underneath the two idler pulleys. The "V" side of the belt must be seated in the grooves of all three pulleys.
4. Roll the tractor up behind the snow thrower, centering it between the snow thrower's mounting plates.
5. Raise the rear of the snow thrower by lifting up on the lift handle until the notches in the mounting plates align with the shoulder bolts in the tractor's side plates. Guide the bolts into the notches.
6. To ease the assembly of the auger drive belt, delay the installation of the attachment pin shown in figure 29 until you have assembled the belt as instructed for figures 30 and 31.



**FIGURE 29** **RIGHT SIDE VIEW**

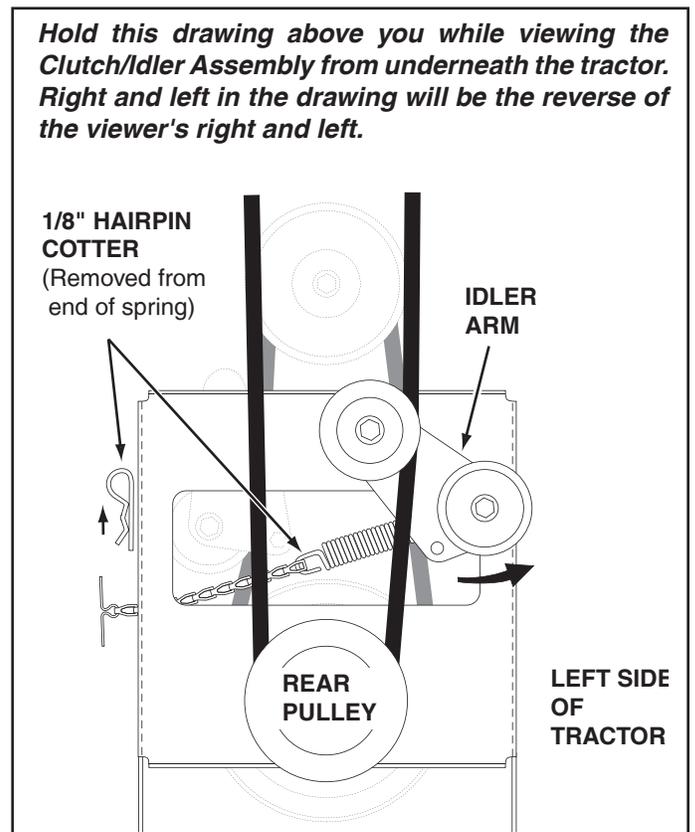
## INSTALLING THE AUGER BELT

7. The auger belt comes preassembled to the pulleys on the snow thrower housing. Make sure the belt passes over the top of the auger pulley and then twists 1/4 turn to pass underneath each side idler pulley. The "V" side of the belt must mate with the grooves of the pulleys. See figure 30.



**FIGURE 30**

8. Push the lift handle down to increase slack in the belt (attachment pin must first be removed).
9. Remove the 1/8" hairpin cotter that secures the end of the idler arm spring to the right side of the clutch idler assembly. Swing the idler arm to the left side. See figure 31.
10. Place the auger belt around the rear pulley and between the two pulleys on the idler arm. The "V" side of the belt must be seated in the grooves of the "V" pulleys. See figure 31.



**FIGURE 31** **VIEWED FROM UNDERNEATH**

## INSTALLING THE ATTACHMENT PIN

11. Lift the front of the snow blower to align the holes in the mounting plates and the side plates. From the left side of the tractor install the attachment pin through the holes, securing it with the 1/8" hairpin cotter. Refer back to figure 29 on page 15.

## SETTING THE AUGER BELT TENSION

12. Pull the tensioning chain until the end of the spring is pulled through the hole in the side of the Clutch/Idler assembly. Install the 1/8" hairpin cotter through the end of the spring, securing it on the outside of the Clutch/Idler assembly. See figure 32.

**IMPORTANT:** For correct belt tension, the 1/8" hairpin cotter **must attach** to the end of the spring, **not** to the chain.

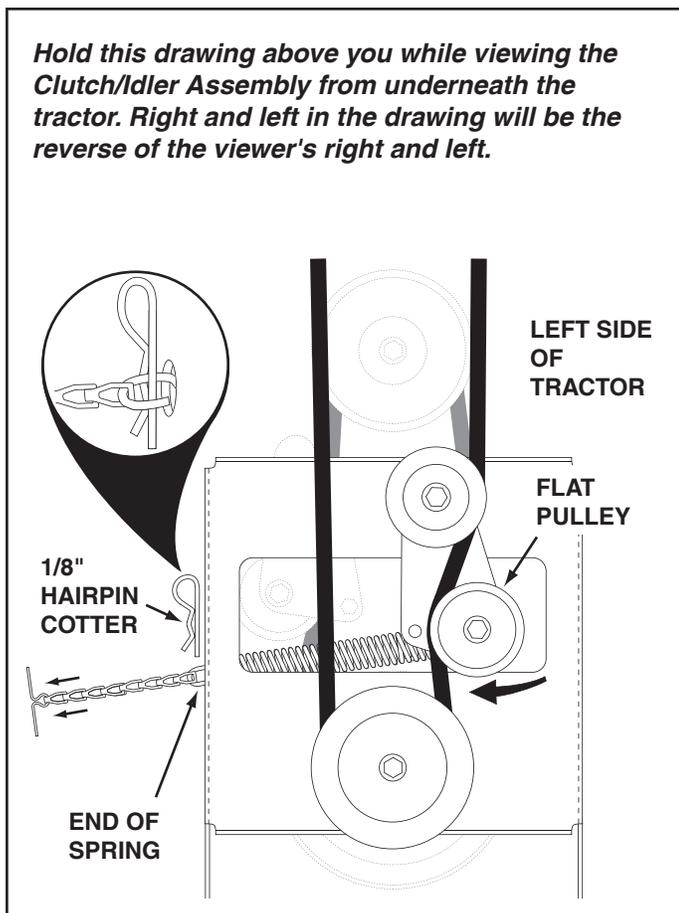


FIGURE 32

VIEWED FROM UNDERNEATH

## INSTALLING THE REAR REFLECTORS

13. If your tractor is not equipped with rear reflectors, assemble the supplied rear reflectors to the rear fender. Place the reflectors as close to the bottom of the fender and as far apart as the shape of the fender will allow. See figure 33.

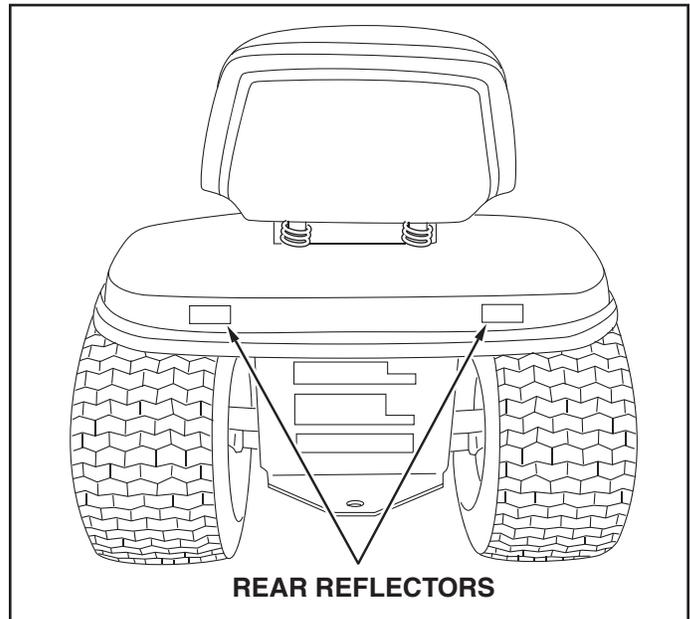


FIGURE 33

## CHECKLIST

Before you operate your snow thrower, please review the following checklist to help ensure that you will obtain the best performance from your snow thrower.

1. All assembly instructions have been completed with all bolts and nuts properly tightened.
2. Check the engine belt and the auger belt. Make sure they are routed properly around pulleys and inside all belt keepers.
3. Check discharge chute for proper rotation.
4. Check operation of tilt control for upper chute.
5. Verify that the lift handle will lock into and release from the raised transport position. (Refer to the Service and Adjustments section.)
6. Check skid shoe adjustment. (Refer to the Service and Adjustments section.)

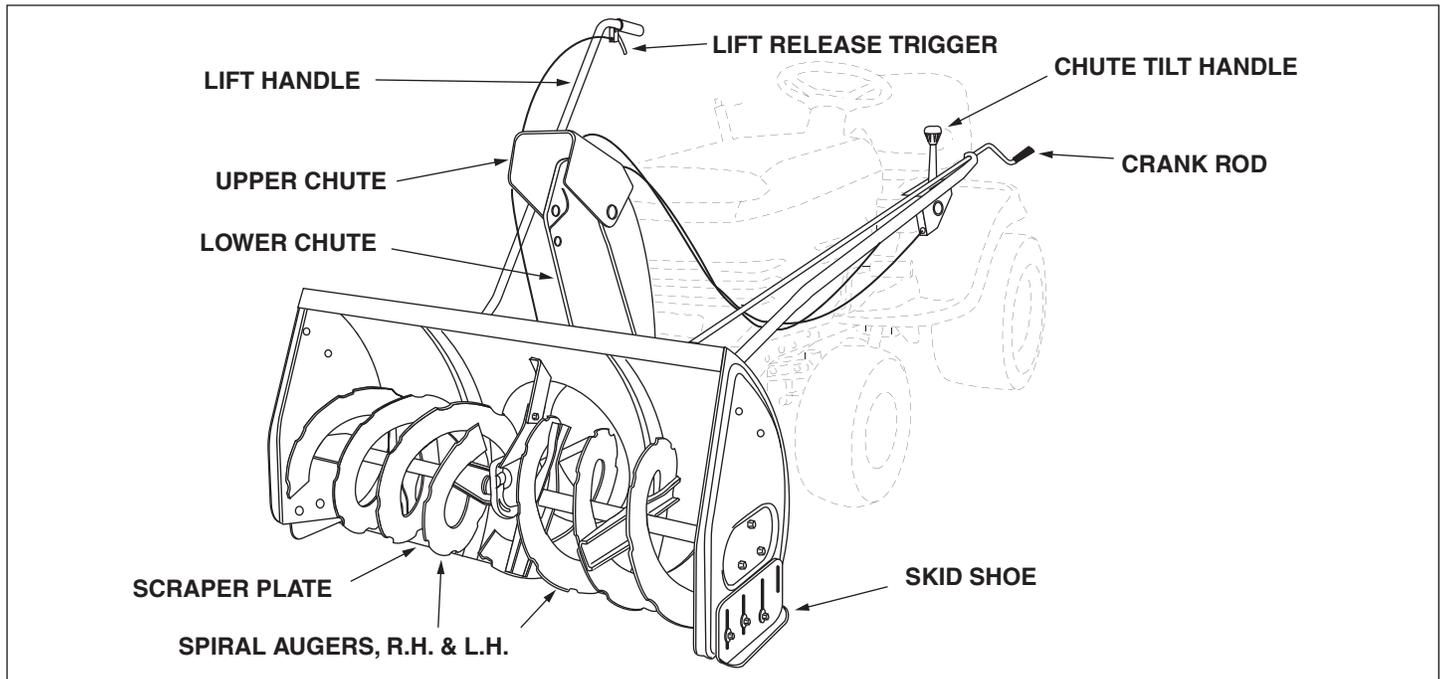
Operating instructions begin on page 17.

# OPERATION

## KNOW YOUR SNOW THROWER

Read this owner's manual and safety rules before operating your snow thrower.

Compare the illustration below with your snow thrower to familiarize yourself with the various controls and their locations.



**CHUTE TILT HANDLE** Pivots the Upper Chute up or down to control the angle and distance of discharge.

**CRANK ROD** Rotates the Lower and Upper Chutes to control the direction of discharge.

**LIFT HANDLE** Used to lift or lower the snow thrower to transport or operating position.

**LIFT RELEASE TRIGGER** Releases the lock which holds the snow thrower in the transport position

**UPPER AND LOWER DISCHARGE CHUTE** Controls direction and height of snow discharge.

**SCRAPER PLATE** Replaceable plate that absorbs wear and impact from contact with ground.

**SKID SHOE** Controls amount of clearance between the scraper plate and the ground.

**SPIRAL AUGER, R.H. & L.H.** Feed snow to the impeller fan at the center of the housing.

## BEFORE STARTING

1. Use the end of assembly checklist to verify that all instructions have been properly completed.
2. Make sure the skid shoes are adjusted to maintain adequate ground clearance between the snow thrower and the type of surface to be cleared. (Refer to the Service and Adjustments section.)
3. Make sure the tractor engine has the correct oil for winter operation (SAE 5W-30). Refer to tractor owner's manual.

## HOW TO START YOUR SNOW THROWER

1. The tractor should be sitting with the engine running at full throttle. Move the attachment clutch to the engaged position, starting the snow thrower before the tractor's transmission is engaged.

## HOW TO STOP YOUR SNOW THROWER

1. To stop the snow thrower, disengage the tractor's attachment clutch lever for manual clutches or the clutch switch for electric clutches. Refer to your tractor owner's manual.

## HOW TO USE YOUR SNOW THROWER



**CAUTION:** Never direct discharge towards bystanders or windows. Do not allow anyone in front of unit.

## CONTROLLING SNOW DISCHARGE

1. To control the direction snow is thrown, the discharge chute has 180 degrees of rotation. Turn the crank rod clockwise to rotate the chute to the right. Turn the crank rod counterclockwise to rotate the chute to the left.
2. To control the distance snow is thrown, the upper section of the discharge chute pivots up and down. Push forward on the chute tilt handle to pivot the chute down, decreasing the distance snow is thrown. Pull back on the handle to pivot the chute up, increasing the distance snow is thrown.

**RAISING AND LOWERING**

- To raise, push down on the lift handle until the snow thrower locks in the raised transport position.
- To lower, push down slightly on the lift handle and pull the trigger. With the trigger pulled, slowly lower the snow thrower until it reaches the ground.



**CAUTION:** Do not operate the snow thrower without rear wheel weights and tire chains attached to the tractor to provide extra traction and stability.

**REMOVING SNOW**

Snow removal conditions vary greatly from light fluffy snowfall to wet heavy snow. Operating instructions must be flexible to fit the conditions encountered. The operator must adapt the lawn tractor and snow thrower to depth of snow, wind direction, temperature and surface conditions.

- Before beginning operation, thoroughly inspect the area of operation and remove all door mats, sleds, boards, wires and other foreign objects.
- The spiral auger speed is directly related to engine speed. For maximum snow removal and discharge, maintain high engine r.p.m. (full throttle). It is advisable to operate the lawn tractor at a slow ground speed (1st gear) for safe and efficient snow removal.
- In deep, drifted or banked snow it will be necessary to use full throttle and a slow ground speed (1st gear). Drive forward into the snow, depress the tractor's clutch-brake pedal and allow the spiral auger to clear the snow. Repeat this method until a path is cleared. On the second pass, overlap the first enough to allow the snow thrower to handle the snow without repeated stopping and starting of forward motion.

- In extremely deep snow, raise the snow thrower from the ground to remove the top layer and drive forward only until the tractor's front tires reach the uncleared bottom layer of snow. Depress the tractor's clutch-brake pedal and allow the spiral auger to clear the snow. Reverse the tractor and lower the snow thrower to the ground. Drive the tractor forward until the snow again becomes too deep. Repeating this process into and out of drifts will eventually clear even the deepest of snow piles.
- If the snow thrower becomes clogged with snow or jammed with a foreign object, disengage the snow thrower immediately and shut off the tractor engine. Unclog the snow thrower before resuming operation.



**DANGER:** Shut off engine and disengage snow thrower before unclogging discharge chute. Unclog using a wooden stick, not your hands.

**OPERATING TIPS**

- Discharge snow down wind whenever possible.
- To help prevent snow from sticking to the snow thrower, allow the snow thrower to reach outdoor temperature before using it. A light coat of wax may also be applied to the inside surface of the snow thrower housing and discharge chute.
- Use tire chains to improve traction.
- Use rear wheel weights to improve traction.
- Before the first snowfall, remove all stones, sticks and other objects which could become hidden by the snow. Permanent obstacles should be marked for visibility.
- Overlap each pass slightly to assure complete snow removal.

**MAINTENANCE**

**CUSTOMER RESPONSIBILITIES**

Read and follow the maintenance schedule and the maintenance procedures listed in this section.

MAINTENANCE SCHEDULE Fill in dates as you complete regular service.	Service Dates											
	Before each use	After each use	Every season	Before storage								
Check for loose fasteners	X											
Check scraper and shoes for wear	X			X								
Cleaning				X								
Lubrication Section			X									

**LUBRICATION**

- Oil all pivot points on the snow thrower.
- Oil the pivot points of the two idler arms on the clutch/idler assembly.
- Apply penetrating oil to the control cables of the discharge chute.
- Apply a good grade of spray lubricant to the trigger assembly and the chute tilt control assembly.

**CHECK SCRAPER AND SHOES FOR WEAR**

- (Refer to figures 34 and 35 on page 19.)**
- The scraper plate and skid shoes on the bottom of the snow thrower are subject to wear. To prevent damage to the spiral auger housing, replace plate and shoes before wear is excessive.

# SERVICE AND ADJUSTMENTS



**CAUTION:** Before servicing or adjusting the snow thrower, shut off the engine, remove the spark plug wire(s), set the parking brake and remove the key from the tractor ignition.

## REPLACING AUGER BELT

1. Disengage the tractor's attachment clutch.
2. Lower the snow thrower to the ground.
3. Remove the attachment pin.
4. Lock the snow thrower's lift handle in the down position to decrease belt tension.
5. Release the spring tension from the auger belt idler arm on the bottom of the clutch/idler assembly.
6. Remove the auger drive belt from the clutch/idler assembly and from the spiral auger housing.
7. Install new belt over top of large auger drive pulley and under the two side idler pulleys. Twist the belt 1/4 turn to seat the "V" of the belt in the groove of each idler pulley. Refer to figure 30 on page 15.
8. Assemble the belt onto the clutch/idler assembly. Refer to figures 31 and 32 on pages 15 and 16.

## SKID SHOE ADJUSTMENT

1. The skid shoes are mounted on each side of the spiral auger housing. They regulate the distance the scraper plate is raised above the plowing surface. When removing snow from a gravel driveway or an uneven surface, it is advisable to keep the scraper plate as high above the surface as possible to prevent possible damage to the spiral auger. On blacktop or concrete surface, keep the scraper plate as close to the surface as possible.
2. Raise the snow thrower off the ground and place a block under each end of the scraper plate. Loosen the six hex nuts securing the skid shoes to the housing. Adjust the skid shoes up or down and retighten the nuts securely. Adjust both skid shoes to the same height to keep the housing and the scraper plate level. See figure 34.

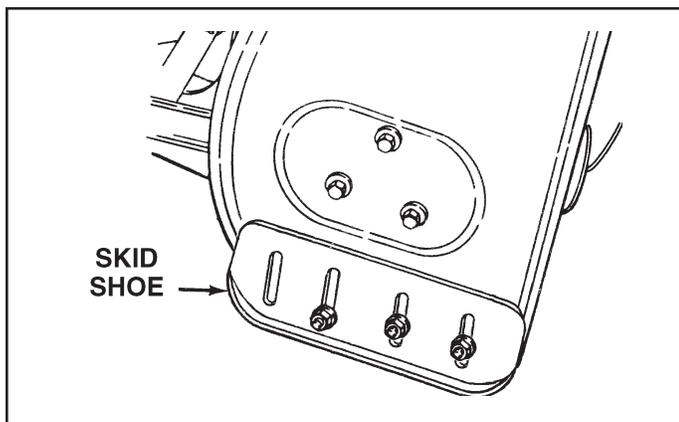


FIGURE 34

## LIFT RELEASE CABLE ADJUSTMENT

1. If the lift rod does not lock the snow thrower securely in the transport position, loosen the upper hex nut on the lift bracket a few turns and tighten the lower hex nut. Refer to figure 24 on page 13.
2. If the lift rod fails to unlock completely to lower the snow thrower, loosen the lower hex nut on the lift bracket a few turns and tighten the upper hex nut. Refer to figure 24 on page 13.

## CLUTCH DISENGAGEMENT ADJUSTMENT (Only tractors with clutch engagement rods.)

If the spiral auger on the snow thrower does not stop when the attachment clutch lever on the tractor is disengaged, then adjustment is necessary. Proceed as follows. Refer back to figure 13 on page 9.

1. Place the attachment clutch lever in the disengaged position.
2. Remove the hairpin cotter from the engagement rod trunnion and lift the trunnion out of the hole in the idler arm.
3. Screw the trunnion a few turns towards the front end of the rod.
4. Replace the trunnion into the hole in the idler arm and secure it with the hairpin cotter.

Check the operation of the snow thrower. If the spiral augers still do not stop, repeat the above steps until the augers stop when the attachment clutch lever is placed in the disengaged position.

## SPIRAL AUGERS

1. The spiral augers are secured to the auger shaft with two shear bolts and hex lock nuts. If you hit a foreign object or if ice jams the augers, the snow thrower is designed so that the bolts will shear.
2. If the augers will not turn, check to see if the shear bolts have sheared. See figure 35. Two replacement shear bolts and hex lock nuts have been provided with the snow thrower. For future use order part number 710-0890A shear bolt and number 43064 hex lock nut.

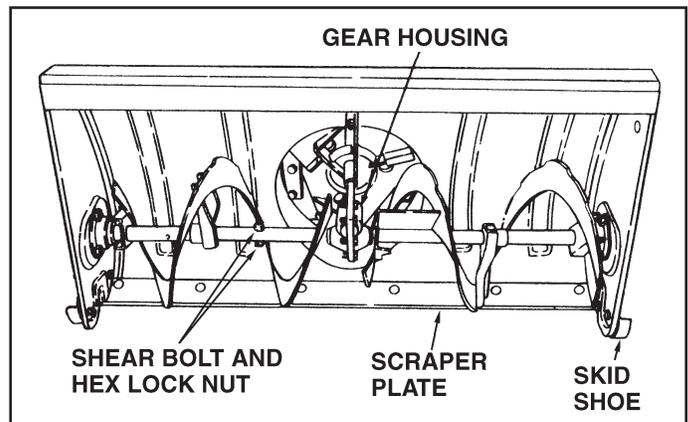


FIGURE 35

## STORAGE

### STORAGE RECOMMENDATIONS

1. Lower the snow thrower to the ground.
2. Remove the snow thrower from the tractor.
3. Clean the snow thrower thoroughly. Wash off any salt deposit which may have dried on the thrower and housing.
4. Any bare metal that has become exposed should be painted or coated with a light oil to prevent rust.
5. Store in a dry place.

### REMOVING THE SPIRAL AUGER HOUSING

1. Lower the snow thrower to the ground.
2. Remove the attachment pin. See figure 29 on page 15.
3. Lock the snow thrower's lift handle in the down position to decrease belt tension.
4. Release the spring tension from the auger belt idler arm on the bottom of the clutch/idler assembly.
5. Remove the auger drive belt from the clutch/idler assembly. See figure 31 on page 15.
6. Pull the spiral auger housing assembly off of the tractor.

### PARTS TO REMOVE AT END OF SEASON

1. Remove the drive belt from the engine pulley.
2. Remove the clutch/idler assembly. (The two hanger brackets and the two shoulder bolts may be left attached to the tractor frame.)
3. Remove the engine pulley keeper and replace it with the tractor's original engine pulley keeper (rod or cable operated attachment clutches only).
4. Remove the engagement rod from the tractor's clutch arm (rod operated attachment clutches only). See figure 11 on page 9.
5. If a front mounted attachment is to be used, remove the side plates from the tractor. Be sure to assemble bolts back into the empty holes in the tractor frame. See figures 1 and 2 on page 6.

## TROUBLESHOOTING

PROBLEM	CAUSE	CORRECTION
Spiral augers don't turn	<ol style="list-style-type: none"> <li>1. Upper or lower V belt too loose</li> <li>2. Upper or lower V belt broken</li> <li>3. Shear bolts are sheared.</li> </ol>	<ol style="list-style-type: none"> <li>1. Increase tension on V belt</li> <li>2. Replace V belt</li> <li>3. Replace shear bolts</li> </ol>
Clogged discharge chute	<ol style="list-style-type: none"> <li>1. Tractor ground speed too fast</li> <li>2. Tractor throttle set too low</li> <li>3. Snow too deep</li> <li>4. Snow melts during contact with the snow thrower</li> </ol>	<ol style="list-style-type: none"> <li>1. Use lower tractor gear</li> <li>2. Increase to full throttle</li> <li>3. Raise the snow thrower</li> <li>4. Allow snow thrower to cool to outdoor temperature before using</li> </ol>
Snow thrower stalls tractor engine	<ol style="list-style-type: none"> <li>1. Object jammed in spiral auger</li> <li>2. Hard or heavy snow</li> </ol>	<ol style="list-style-type: none"> <li>1. Stop engine, disengage the snow thrower clutch and clear the auger</li> <li>2. Increase to full throttle and decrease ground speed</li> </ol>
Front wheels slide instead of steering	Not enough traction at front wheels	<ol style="list-style-type: none"> <li>1. Increase scraper plate clearance by lowering skid shoes</li> <li>2. Pull down on lift handle to increase weight on front wheels</li> </ol>
Snow thrower rides up over snow	<ol style="list-style-type: none"> <li>1. Tractor ground speed too fast</li> <li>2. Bottom snow is icy or hard packed</li> </ol>	<ol style="list-style-type: none"> <li>1. Reduce ground speed</li> <li>2. Lower the skid shoes so that front of skid shoe is lower than the rear</li> </ol>

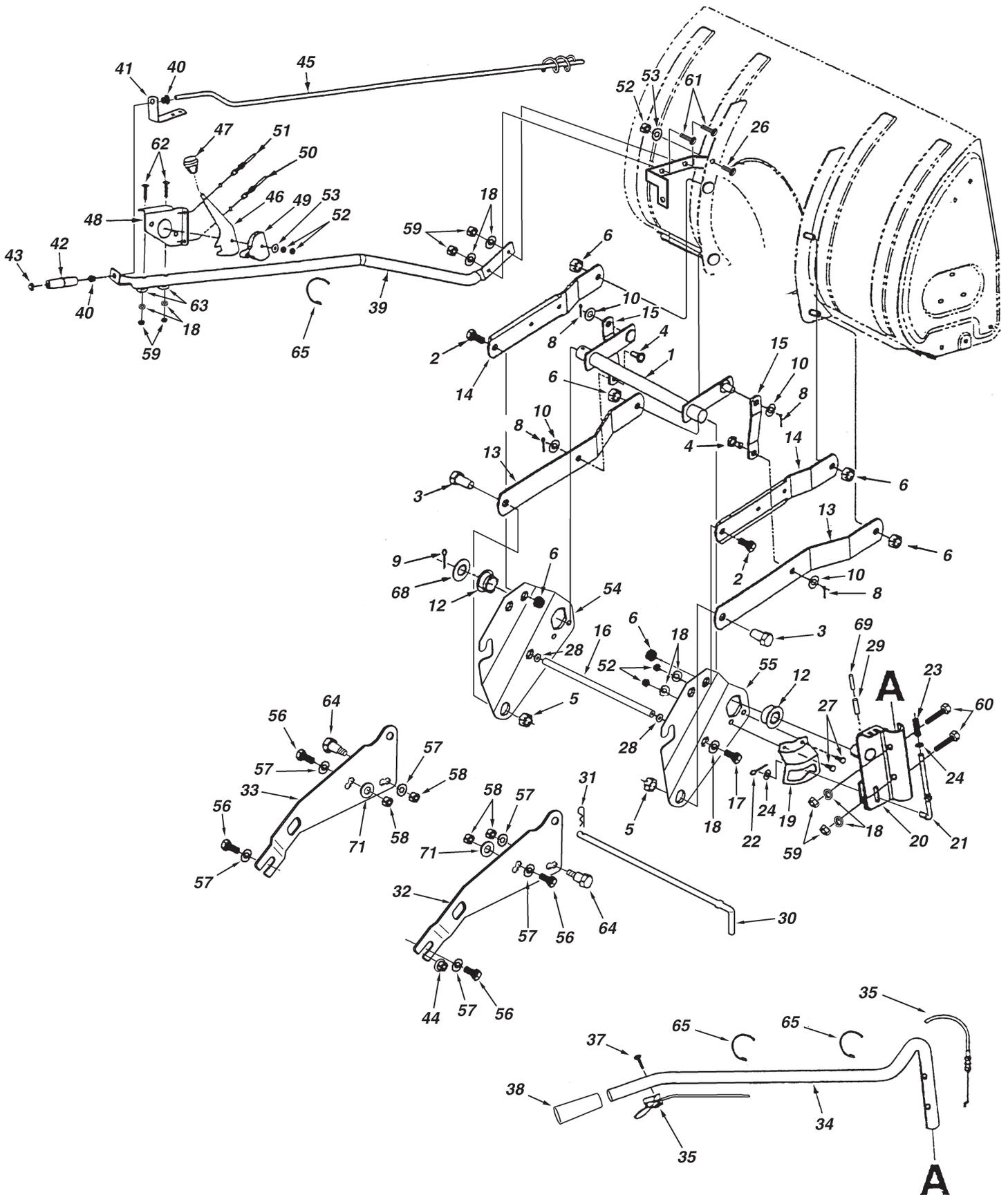
# NOTES



## REPAIR PARTS FOR MODEL LST 42A - 42" SNOW THROWER

REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION
1	05931	1	Housing, Bearing	57	08253B	1	Housing, Bearing
2	64184	1	Housing Assembly	58	15296A	1	Housing, Open Bearing
3	618-0616	1	Gear Assembly	59	14088B	1	Spacer, Spindle
4	63579	1	Chute Crank Rod Assembly	60	44377	2	Hex Bolt, 3/8-24 x 1"
5	63768	1	Impeller Assembly	61	736-0247	3	Washer,
6	24773	1	Scraper Plate	62	43063	3	Hex Bolt, 5/16-18 x 1"
7	703-2734	1	Bracket, Housing Brace	63	48138	1	Belt, V Type Drive
8	703-2735A	1	Bracket, Chute Crank	64	47846	1	Belt, V Type Auger
9	24816	1	Cover, Belt	65	47044	3	Pulley, V Type 4"
10	705-5226	1	Chute Reinforcement	66	47026	1	Pulley, V Type
11	705-5269	1	Spiral Assembly, L.H. (not shown)	67	47025	1	Hex Bolt, 5/16-18 x 3-1/2"
12	705-5270	1	Spiral Assembly, R.H.	68	43432	1	Hex Bolt, 3/8-16 x 2-1/2"
13	43182	2	Hex Bolt, 5/16-18 x 3/4" Lg.	69	731-0851A	3	Chute Keeper
14	44950	5	Carriage Bolt, 1/4-20 x 3/4"	70	43661	6	Hex Bolt, 1/4-20 x 1"
15	44917	1	Palnut, 3/8"	71	43054	3	Hex Bolt, 3/8-16 x 2"
16	44326	4	Carriage Bolt, 5/16-18 x 1" Lg.	72	731-1300A	1	Chute, Lower
17	43080	13	Carriage Bolt, 5/16-18 x 3/4" Lg.	73	710-0896	1	Screw, 1/4-14 x 5/8"
18	46703	6	Bolt, Self-Tap 5/16" x 3/4"	74	43681	1	Carriage Bolt, 5/16-18 x 1-1/2"
19	710-0890A	2	Bolt, Shear 5/16-18 x 1-1/2"	75	24571	1	Spacer
20	43088	5	Washer, 1/4"	76	731-04427	1	Chute, Upper
21	43064	34	Hex Lock Nut, 5/16-18 Thd.	77	731-1313C	1	Guide, Cable
22	43013	5	Hex Lock Nut, 1/4-20	78	784-5594	1	Bracket, Cable
23	43083	4	Hex Nut, 5/16-18	79	24472	1	Spacer, Pivot
24	715-0114	2	Spiral Pin, 1/4" x 1-1/2" Lg.	80	746-0929	1	Cable, Chute Control With Clip
25	750-0437	2	Bushing	81	746-0928	1	Cable, Chute Control
26	731-1379A	1	Chute Adapter	82	43070	9	Washer, 3/8"
27	43086	23	Lock Washer, 5/16"	83	46959	1	Spring
28	736-0188	6	Washer, .76" x 1.49" x .06"	84	46963	2	Chain
29	711-0469	4	Spacer, .75 ID x 1.25 OD x .5 L	85	43055	1	Pin, Hair Cotter, 3/32"
30	43081	18	Washer, 5/16" Std. Wrt.	86	43038	2	Pin, Pivot Lock
31	47615	2	Bearing, Flange	87	23727	1	Spacer
32	741-0309	1	Bearing, Ball	88	43088	7	Washer, 1/4"
33	741-0475	2	Bushing, Plastic 3/8"	89	43343	4	Pin, Hair Cotter #4 (1/8")
34	741-0493A	4	Bearing, Split, 3/4"	90	43350	4	Carriage Bolt, 3/8-16 x 1"
35	24279	2	Skid Shoe	91	47134	3	Pin, Hair Cotter 5/64"
36	24294	1	Frame Clutch and Pulley	92	711-0198	1	Trunnion
37	784-5618	2	Housing, Bearing	93	24394	1	Bracket, Chute Anti-rotation
38	24393	1	Bracket, Chute Crank	94	1643-60	1	Plastic Cap
39	24281	1	Bracket, Idler	95	64452	1	Hanger Bracket Assembly, R.H.
40	63904	1	Idler Arm Assembly	96	64451	1	Hanger Bracket Assembly, L.H.
41	24286	1	Spacer, Pivot	97	47043	1	Keeper, Engine Pulley
42	63762	1	Idler Bracket Assembly	98	46948	1	Rod, Engagement
43	41576	2	Hex Bolt, 3/8-16 x 1-3/4"	99	48106	4	Bolt, Shoulder
44	44377	1	Hex Bolt, 3/8-24 x 1"	100	24466	2	Bracket, Down Stop
46	43015	1	Hex Nut, 3/8-16	101	47620	1	Spring
47	711-0242	1	Spacer	102	47607	1	Spring, Torsion
48	46981	1	Pulley, V Type 9"	103	23625	1	Spacer
49	43082	17	Nut, Hex Lock, 3/8-16	104	43509	1	Hex Bolt, 3/8-16 x 2-3/4" Lg.
50	46982	1	Pulley, V Type 5-1/2"	105	47598	6	Hex Lock Nut, 1/4" Wash. Face
51	738-0680	1	Shaft	106	47605	1	Washer, Flat 3/8"
52	750-0456	1	Spacer	107	24558	1	Cable Bracket
53	750-0660	1	Spacer	108	43796	1	Hex Bolt, 1/4-20 x 2-3/4"
54	43003	12	Lock Washer, 3/8"	109	43178	2	Hex Nut, 1/4-20
55	714-0161	2	Key	110	43177	1	Lock Washer, 1/4"
56	741-0919	2	Bearing, Ball	111	48883	2	Pulley, Flat 3-5/8"
				112	48015	5	Washer, Nylon
					49784	1	Owner's Manual

# REPAIR PARTS FOR MODEL LST 42A - 42" SNOW THROWER



## REPAIR PARTS FOR MODEL LST 42A - 42" SNOW THROWER

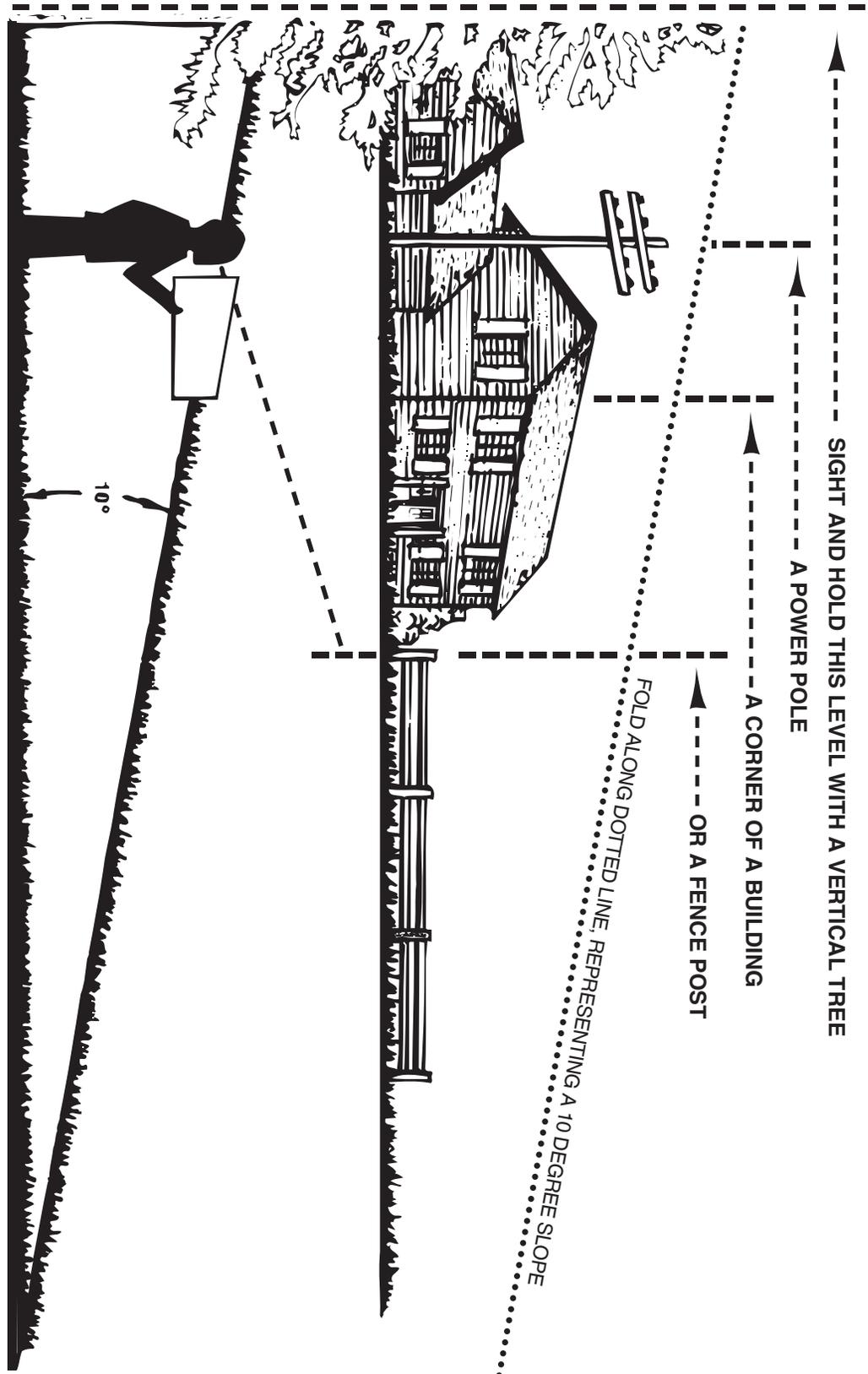
REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION
1	64637	1	Lift Shaft Assembly	41	703-2735A	1	Bracket, Chute Crank
2	710-0865	2	Hex Bolt, 1/2-13 x 1"	42	720-0201A	1	Knob, Crank
3	710-0367	2	Hex Bolt, 5/8-11 x 1-1/4"	43	44917	1	Palnut, 3/8"
4	711-0332	2	Pin, Bracket Lift	44	46584	1	Nut, Whizlock 5/16-18
5	712-0261	2	Nut, Hex Lock 5/8-11 Thread	45	63579	1	Assembly, Chute Crank Rod
6	43262	6	Nut, Hex Lock 1/2-13	46	784-5604	1	Handle, Chute Tilt
8	142	4	Pin, Cotter 1/8" x 3/4"	47	720-0232	1	Knob
9	43093	1	Pin, Cotter 1/8" x 1-1/2"	48	603-0302	1	Assembly, Chute Tilt Bracket
10	R19171616	6	Washer, 17/32" x 1"	49	731-1313C	2	Guide, Cable
12	741-0192	2	Bearing, Flange With Flats	50	746-0928	1	Cable, Chute Control
13	783-0380	2	Link, 15.80" Long	51	746-0929	1	Cable, Chute Control with Clip
14	783-0381	2	Link, 11.75" Long	52	43064	5	Nut, Hex Lock 5/16-18
15	24476	2	Link, 4.88" Long	53	43081	2	Washer, 5/16"
16	24311	1	Rod, Spacer	54	24285	1	Plate, Mounting (L.H.)
17	47599	2	Hex Bolt, 5/16-18 x 1" (Locking)	55	24284	1	Plate, Mounting (R.H.)
18	43086	10	Lock Washer, 5/16"	56	47631	4	Hex Bolt, 3/8-16 x 1" Self Thr.
19	24298	1	Bracket, Lift	57	43003	6	Lock Washer, 3/8"
20	63773	1	Assembly, Handle Lift Bracket	58	43082	4	Nut, Hex Lock 3/8-16
21	48049	1	Rod, Index Lift	59	43083	6	Nut, Hex 5/16-18
22	142	1	Cotter Pin, 1/8" x 3/4"	60	43084	2	Hex Bolt, 5/16-18 x 1-3/4"
23	732-0306	1	Spring, Compression	61	43682	2	Carriage Bolt, 5/16-18 x 1-1/4"
24	R19131316	2	Washer, 13/32" x 13/16"	62	44215	2	Carriage Bolt, 5/16-18 x 1-3/4"
26	43080	1	Carriage Bolt, 5/16-18 x 3/4"	63	44695	2	Washer, Bowed
27	43182	2	Hex Bolt, 5/16-18 x 3/4"	64	48106	2	Bolt, Shoulder
28	R19111116	2	Washer, 11/32 x 11/16 x 3/64	65	726-0178	3	Tie, Nylon
29	47368	1	Pin, Spring 5/16" x 1-3/4"	68	43601	1	Washer, 1.59" x 1.032" x .060"
30	46954	1	Pin, Attachment	69	47369	1	Pin, Spring 3/16" x 1-3/4"
31	43343	1	Pin, Haircotter #4 (1/8")	71	R19172410	2	Washer, 1/2"
32	24654	1	Plate, Side (R.H.)				
33	24653	1	Plate, Side (L.H.)				
34	47326	1	Tube, Lift Handle				
35	49912	1	Cable-Trigger Assembly				
37	710-1233	1	Screw, Oval #10-24 x 1"				
38	46446	1	Grip, Handle				
39	47027	1	Tube, Crank Rod Support				
40	741-0475	2	Bushing, 3/8" Plastic				



# SLOPE GUIDE

(Keep this sheet in a safe place for future reference.)

Use this guide to determine if a slope is safe for the operation of your tractor and snow thrower. Refer also to the instructions in your vehicle owners manual.



**CAUTION: DO NOT OPERATE YOUR TRACTOR AND SNOW THROWER ON A SLOPE IN EXCESS OF 10 DEGREES. BE SURE OF YOUR TRACTOR'S TOWING AND BRAKING CAPABILITIES BEFORE OPERATING ON A SLOPE. AVOID ANY SUDDEN TURNS OR MANEUVERS WHILE ON A SLOPE.**

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