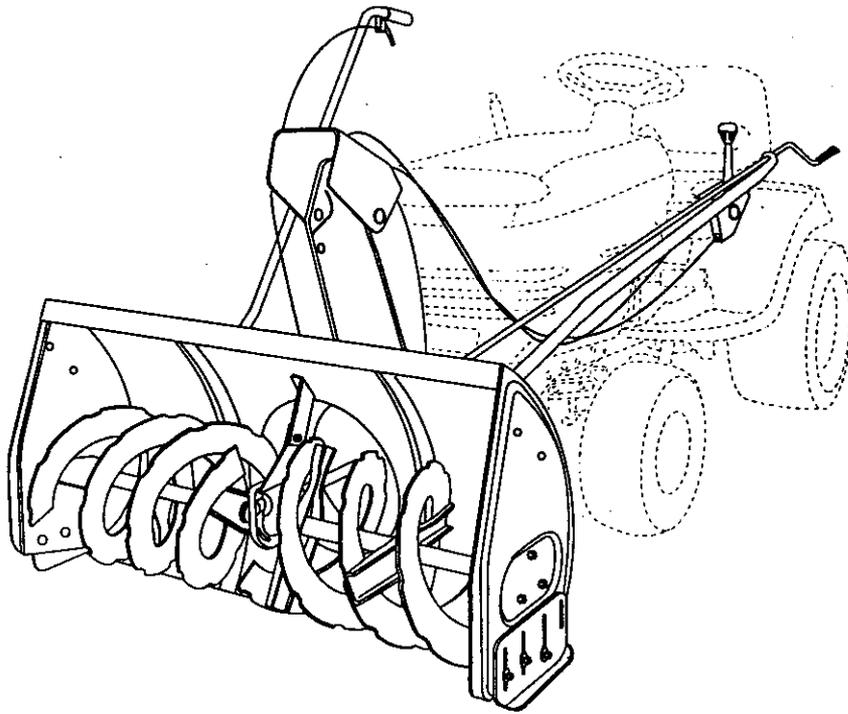


Owner's Manual

CRAFTSMAN®

**40" - 2 STAGE SNOW THROWER
TRACTOR ATTACHMENT**

Model No. 486.248400



CAUTION:

Before using this product,
read this manual and follow
all Safety Rules and
Operating Instructions.

- Safety
- Assembly
- Operation
- Maintenance
- Parts

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.

PRINTED IN U.S.A.

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WARRANTY

LIMITED ONE YEAR WARRANTY ON 40" 2-STAGE SNOW THROWER

For one year from the date of purchase, when this snow thrower is maintained and lubricated according to the operating and maintenance instructions in the owner's manual, Sears will repair any defect in material or workmanship free of charge. If this snow thrower is used for commercial or rental purposes, this warranty applies for only 90 days from the date of purchase.

This warranty does not cover repairs necessary because of operator negligence or abuse, including the failure to maintain the equipment according to instructions contained in the owner's manual.

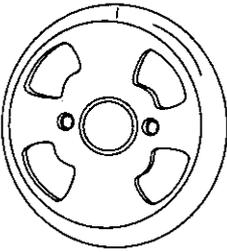
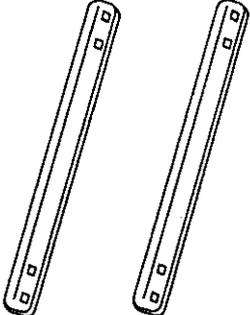
WARRANTY SERVICE IS AVAILABLE BY CONTACTING THE NEAREST SEARS SERVICE CENTER/DEPARTMENT IN THE UNITED STATES.

This warranty applies only while this product is in the United States.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Sears, Roebuck and Co. D/817 WA. Hoffman Estates, Chicago, IL 60179

ACCESSORIES AND ATTACHMENTS

These accessories were available when the unit was purchased. They are also available at most Sears retail outlets and service centers. Most Sears stores can order repair parts for you when you provide the model numbers of your tractor and snow thrower.

<p>WHEEL WEIGHT</p> 	<p>TIRE CHAINS</p> 	<p>DRIFT CUTTER BARS KIT NO. 71-52050</p> 
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<p>The model number and serial numbers will be found on a decal attached to the snow thrower.</p> <p>You should record both the serial number and the date of purchase and keep in a safe place for future reference.</p>	<table style="width: 100%; border: none;"> <tr> <td style="border: none;">MODEL NUMBER:</td> <td style="border: none;">486.248400</td> </tr> <tr> <td style="border: none;">SERIAL NUMBER:</td> <td style="border: none;">_____</td> </tr> <tr> <td style="border: none;">DATE OF PURCHASE:</td> <td style="border: none;">_____</td> </tr> </table>	MODEL NUMBER:	486.248400	SERIAL NUMBER:	_____	DATE OF PURCHASE:	_____
MODEL NUMBER:	486.248400						
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DATE OF PURCHASE:	_____						



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.

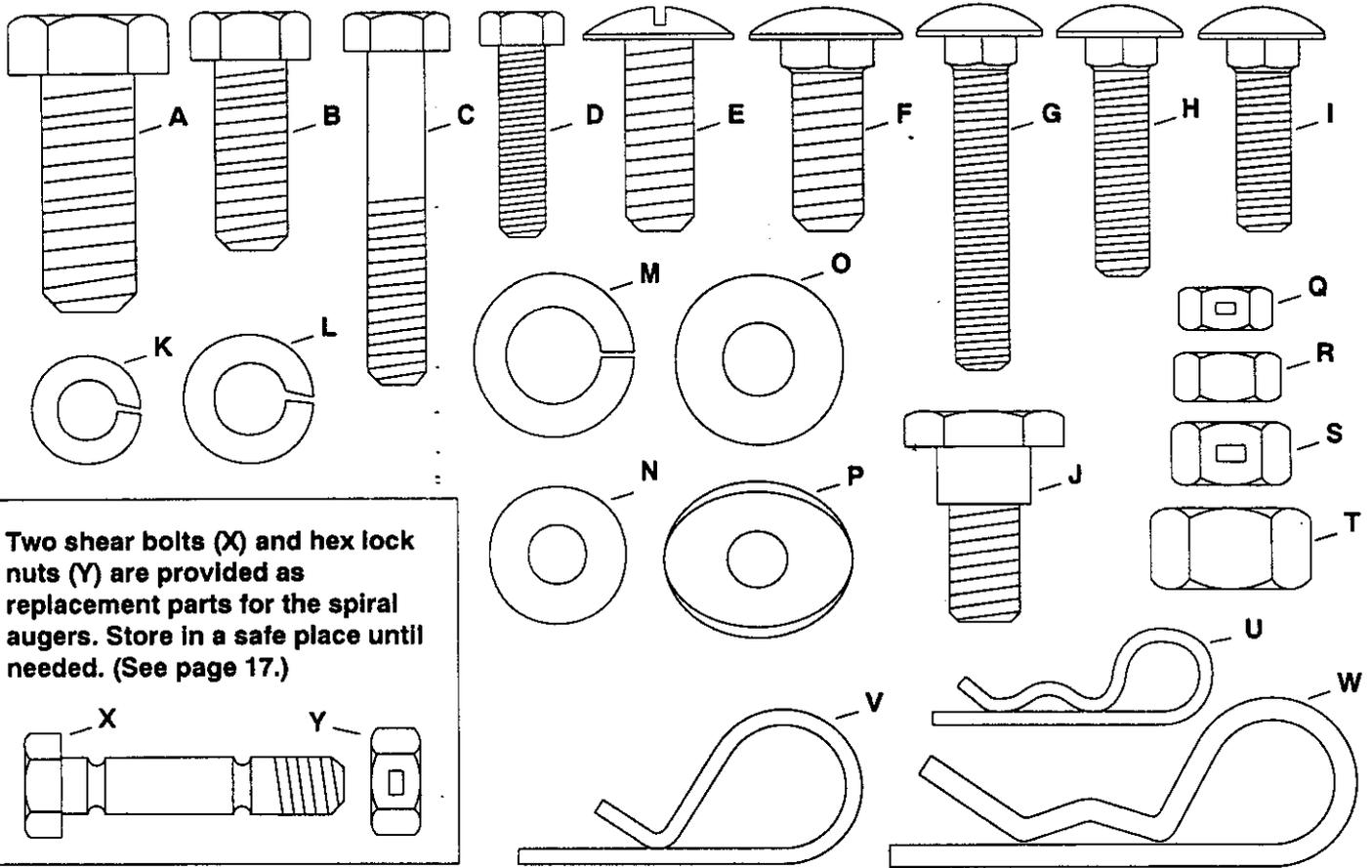
- Read this owner's manual carefully and know how to operate your snow thrower and how to stop the unit and disengage the controls quickly.
- Never allow children to operate the equipment.
- Never allow adults to operate the equipment without proper instruction.
- Keep the area of operation clear of 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 19 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.



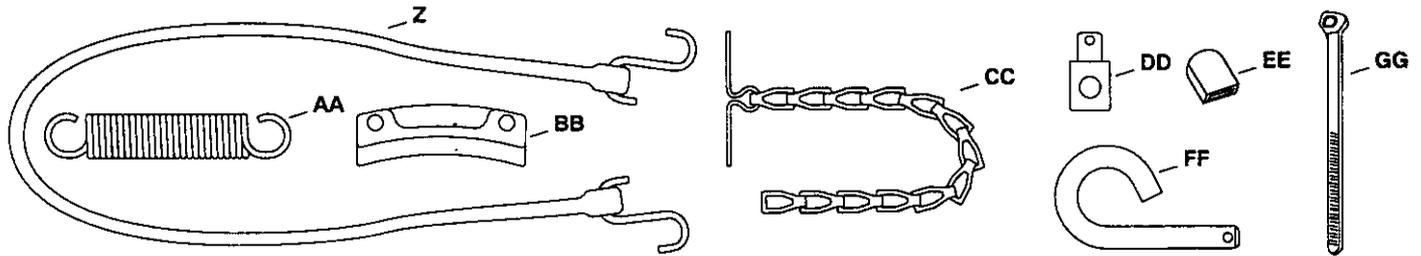
Look for this symbol to point out important safety precautions. It means--**Attention!! Become alert!! Your safety is involved.**

HARDWARE PACKAGE CONTENTS

SHOWN ACTUAL SIZE



NOT SHOWN ACTUAL SIZE

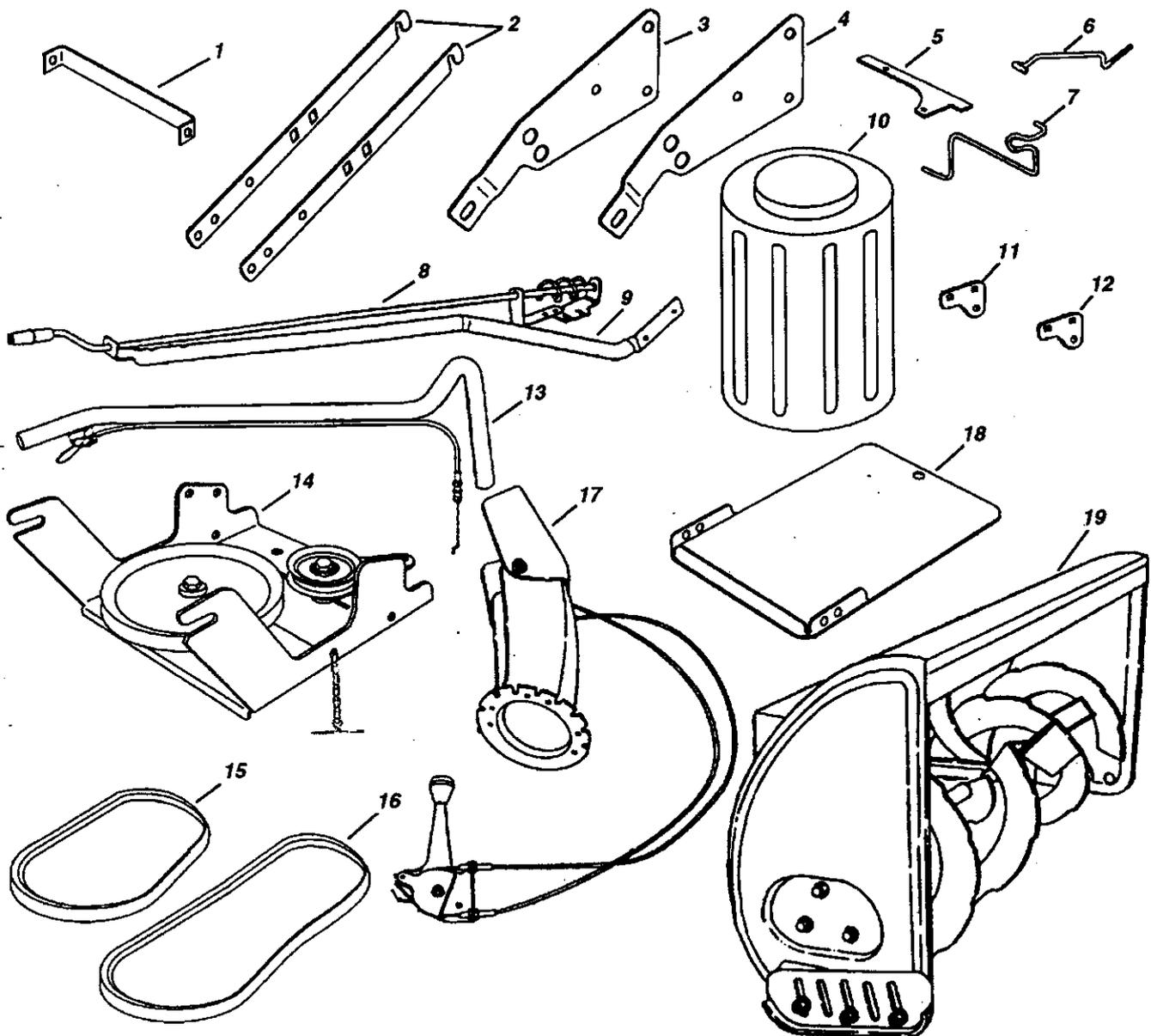


REF.	QTY.	DESCRIPTION	REF.	QTY.	DESCRIPTION
A	1	Hex Bolt, 1/2" x 1-1/4"	Q	6	Hex Lock Nut, 1/4"
B	4	Hex Bolt, 3/8" x 1"	R	12	Hex Nut, 5/16"
C	2	Hex Bolt, 5/16" x 1-3/4"	S	9	Hex Lock Nut, 3/8"
D	6	Hex Bolt, 1/4" x 1"	T	1	Hex Nut, 1/2"
E	2	Slotted Truss Head Bolt, 3/8" x 1"	U	2	Hairpin Cotter, 5/64"
F	4	Carriage Bolt, 3/8" x 1"	V	1	Hairpin Cotter, 3/32"
G	2	Carriage Bolt, 5/16" x 1-3/4"	W	4	Hairpin Cotter, 1/8"
H	2	Carriage Bolt, 5/16" x 1-1/4"	X	2	Shear Bolt
I	6	Carriage Bolt, 5/16" x 1"	Y	2	Hex Lock Nut, 5/16"
J	4	Shoulder Bolt, 3/8" x 5/8"	Z	1	Tarp Strap
K	12	Lock Washer, 5/16"	AA	1	Spring
L	10	Lock Washer, 3/8"	BB	3	Chute Keeper
M	1	Lock Washer, 1/2"	CC	1	Chain, Tensioning
N	6	Washer, 1/4"	DD	1	Trunnion
O	2	Washer, 5/16"	EE	1	Plastic Cap
P	2	Bowed Washer	FF	2	Lock Pin
			GG	1	Nylon Tie

ASSEMBLY

CARTON CONTENTS

1. Cross Brace (Weight Tray)
2. Side Brace (Weight Tray)
3. Right Hand Side Plate (Stamped "R")
4. Left Hand Side Plate (Stamped "L")
5. Anti-rotation Bracket
6. Engagement Rod
7. Engine Pulley Keeper
8. Chute Crank Rod Assembly
9. Support Tube, Crank Rod
10. Plastic Keg
11. Left Hand Hanger Bracket (Stamped "L")
12. Right Hand Hanger Bracket (Stamped "R")
13. Lift Handle Tube and Cable
14. Clutch Idler Assembly
15. V Belt, 55"
16. V Belt, 112" (Attached to Housing Assembly)
17. Chute and Control Cable Assembly
18. Weight Tray
19. Housing 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

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

NOTE: Not all of the supplied parts and hardware will be used. If your tractor has a manual attachment clutch, you will not use items S(1), V(1), AA(1) and CC(1) shown on page 4. If your tractor has an electric attachment clutch, you will not use items U(2) and DD(1) shown on page 4, and items 6 and 7 shown on page 5.



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

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

ASSEMBLY OF PARTS TO TRACTOR FRAME

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

- Remove and save two bolts from each side of the tractor frame as shown in figure 1.

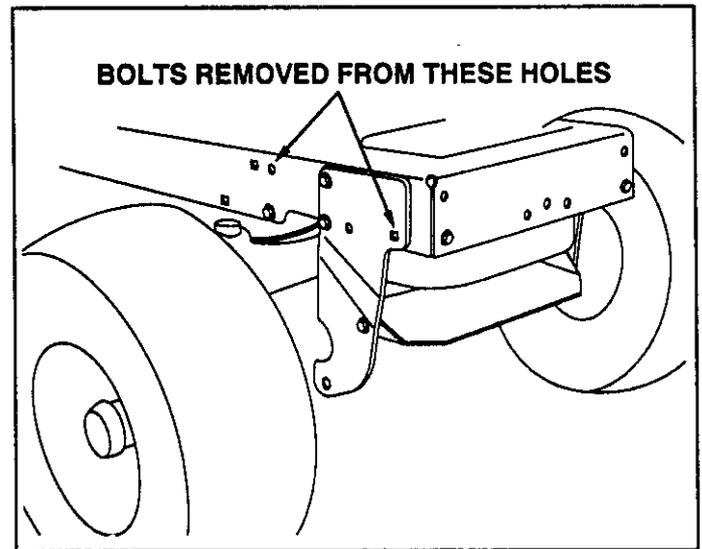


FIGURE 1

- Assemble the R.H. Side Plate (marked with an "R") to the now empty holes in the right hand side of the tractor frame using two 3/8" x 1" hex bolts and 3/8" lock washers as shown in figure 2. Repeat for the L.H. side.

NOTE: If the side plates are removed from the tractor frame, bolts must be assembled back into the empty holes in the frame.

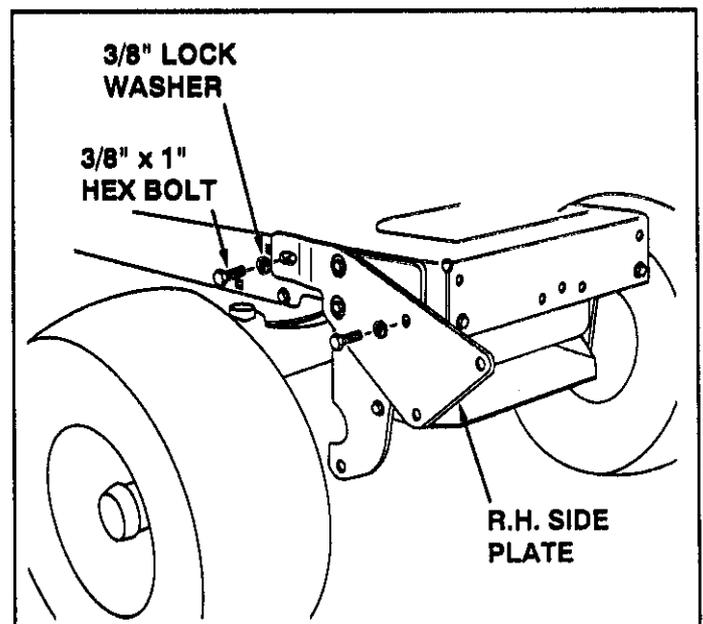


FIGURE 2

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

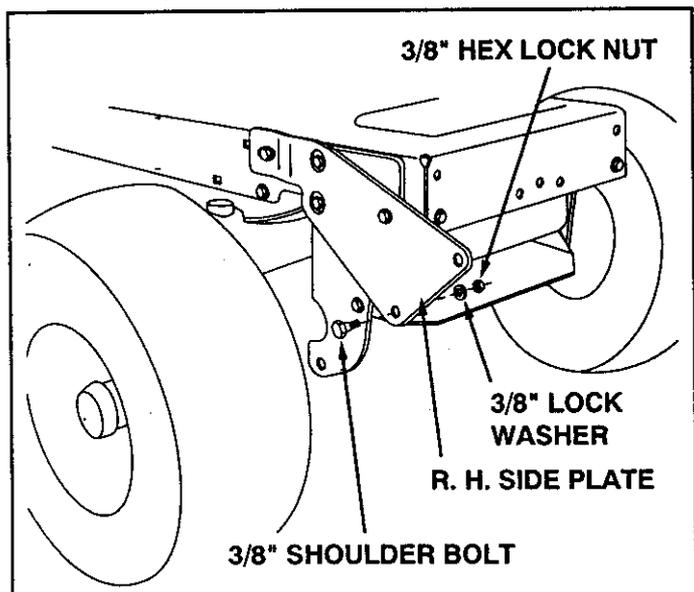


FIGURE 3

INSTRUCTIONS FOR TRACTORS WITH FOOT REST BRACKETS UNDER THE FOOT RESTS (Figure 4.)

- Remove and discard the bolt and nut from the L.H. foot rest bracket and the side of the tractor frame as shown in figure 4. Repeat for the R.H. bracket. **HINT:** If the tractor's suspension arms are in the way, lower them using the attachment lift lever.

- Using the now empty hole and the hole beside it, attach the L.H. Hanger Bracket (marked "L") to the inside of the tractor frame. Use two 3/8" x 1" carriage bolts, 3/8" lock washers and 3/8" hex lock nuts, making sure the bolt heads are on the inside of the tractor frame. Repeat for the R.H. side. See figure 4.

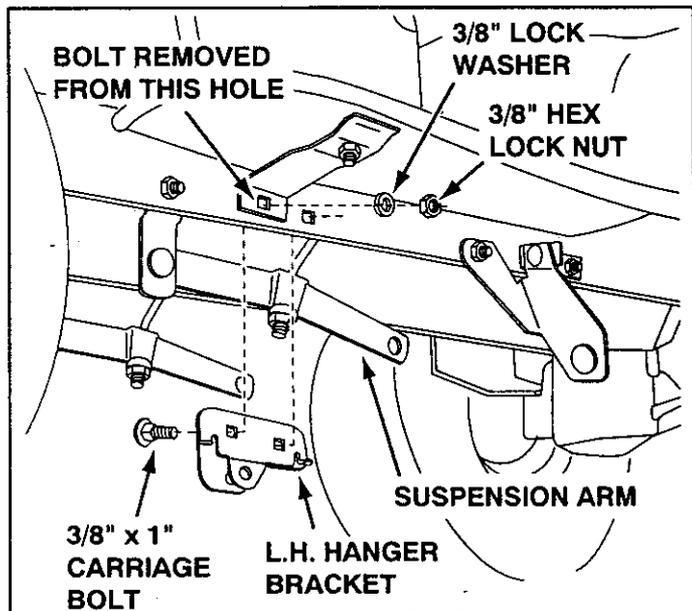


FIGURE 4

LEFT SIDE VIEW

INSTRUCTIONS FOR TRACTORS NOT HAVING FOOT REST BRACKETS UNDER THE FOOT RESTS (Figure 5.)

- Locate the empty hole beneath the foot rest in the left side of the tractor frame as shown in figure 5. Attach the L.H. Hanger Bracket (marked "L") to the inside of the frame using a 3/8" x 1" carriage bolt, 3/8" lock washer and 3/8" hex lock nut. Make sure the bolt is assembled from the inside of the tractor frame. Repeat for the R.H. side. **HINT:** If the tractor's suspension arms are in the way, lower them using the attachment lift lever.

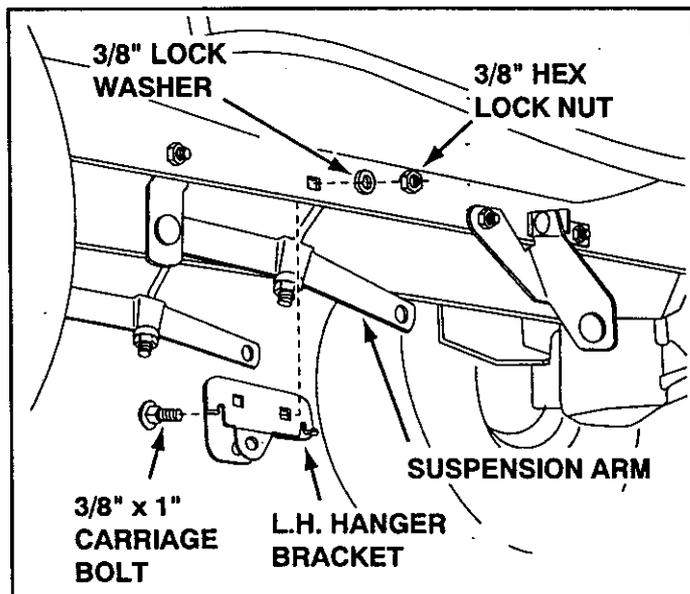


FIGURE 5

LEFT SIDE VIEW

INSTRUCTIONS FOR ALL TRACTORS

- Remove and discard 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 6.

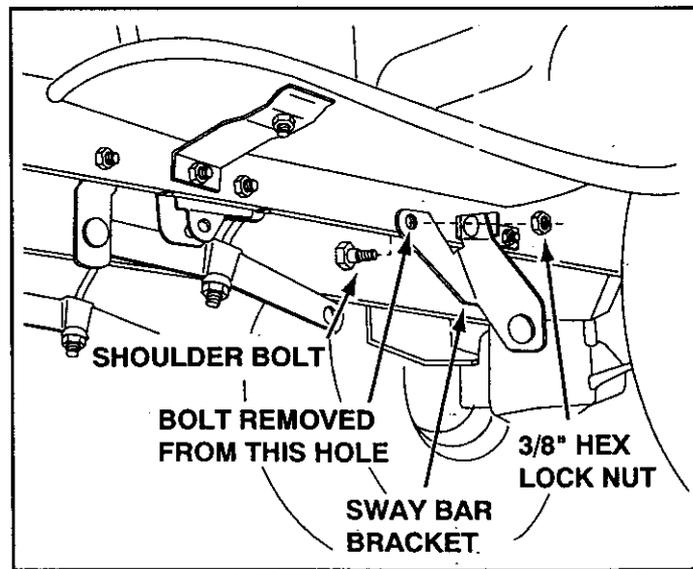


FIGURE 6

LEFT SIDE VIEW

- 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 7
- Replace the engine pulley keeper on your tractor with the new pulley keeper supplied with the snow blower. Attach the keeper to the frame using the original bolt, washer and nut. See figure 7.
NOTE: Some tractors may already be equipped with an identical pulley keeper.

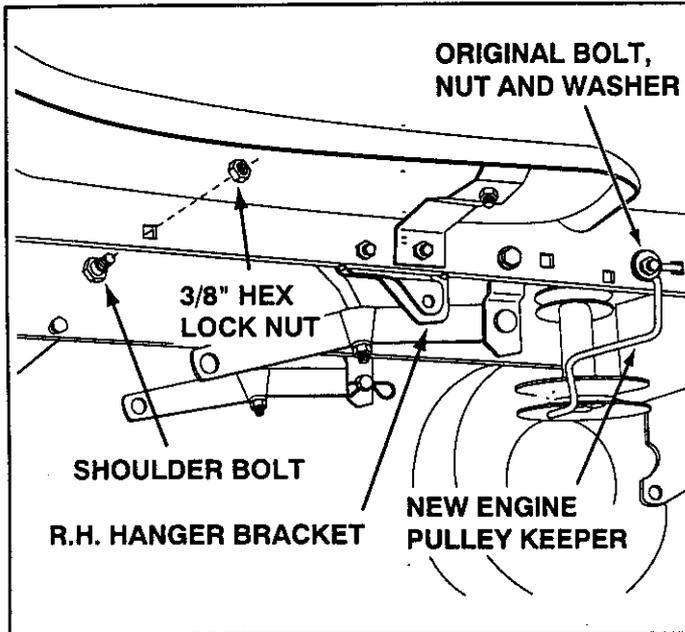


FIGURE 7 RIGHT SIDE VIEW

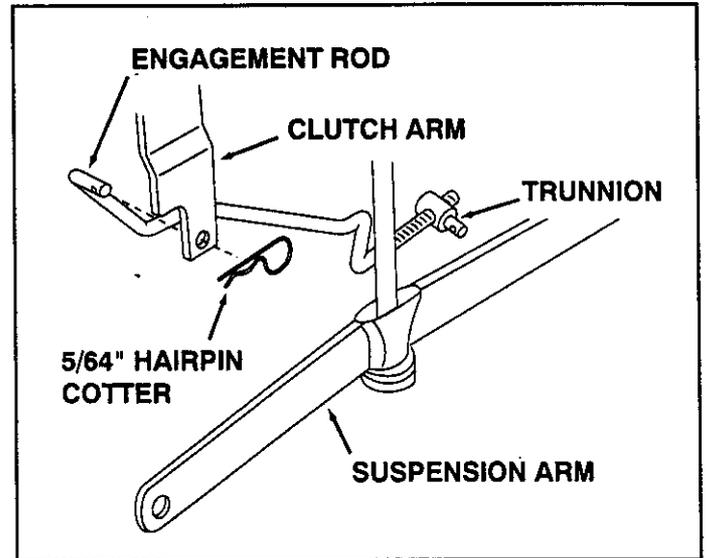


FIGURE 8 RIGHT SIDE VIEW

- Be sure that the loose end of the engagement rod is lifted up toward the front of the tractor (as shown in figure 9) when performing the next operation. You can temporarily support the rod using a rubber band tied to the engine pulley keeper.
- Attach the snow thrower's clutch/idler assembly to the tractor frame by sliding the notched arms at the rear of the assembly onto the two shoulder bolts assembled to the inside of the tractor frame. Lift the front of the assembly, fitting the sides into the R.H. and L.H. hanger brackets. Attach the assembly to the brackets using two pivot lock pins and 1/8" hairpin cotters. See figure 9.

INSTALLING THE CLUTCH/IDLER ASSEMBLY ON TRACTORS WITH MANUAL ATTACHMENT CLUTCHES (Use these instructions if your tractor has an attachment clutch lever on the dash panel for starting and stopping the mower deck.)

- Move the attachment clutch lever on the dash panel to the disengaged (down) position.
- Screw the trunnion onto the end of the engagement rod as shown in figure 8.
- Locate the clutch arm which is found underneath the right hand side the tractor, just to the inside of the suspension arm. This is the arm that the mower clutch rod was connected to. This arm will move forward and backward if the attachment clutch lever on the dash panel is moved.
- 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 8.

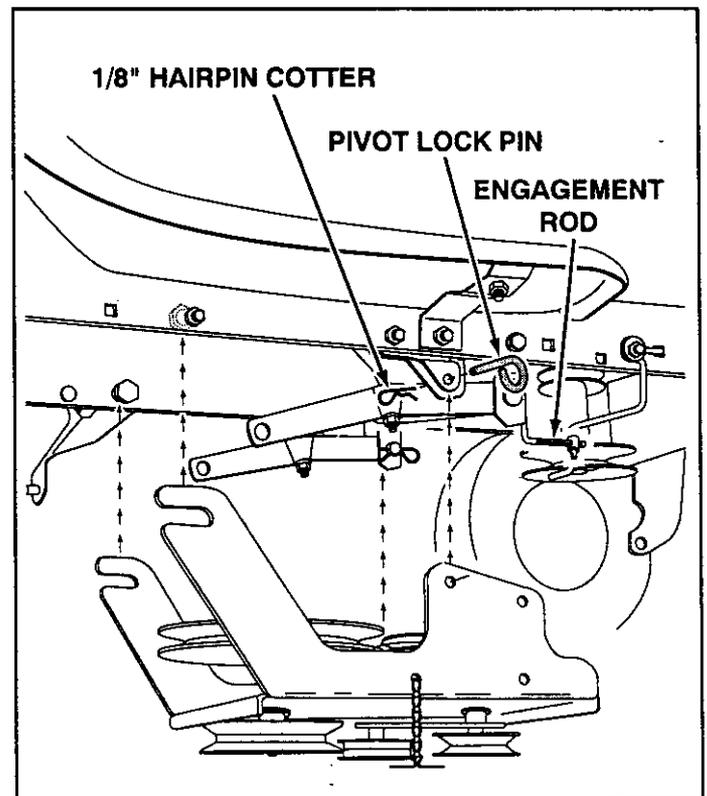


FIGURE 9 RIGHT SIDE VIEW

- Make sure the attachment clutch lever on the dash panel is in the disengaged (down) position.
- Position the idler arm so that it points straight forward, as shown in figure 10. Align the engagement rod trunnion with the hole in the idler arm by screwing the trunnion in or out on the rod. Attach the trunnion to the idler arm using a 5/64" hairpin cotter. See figure 10.

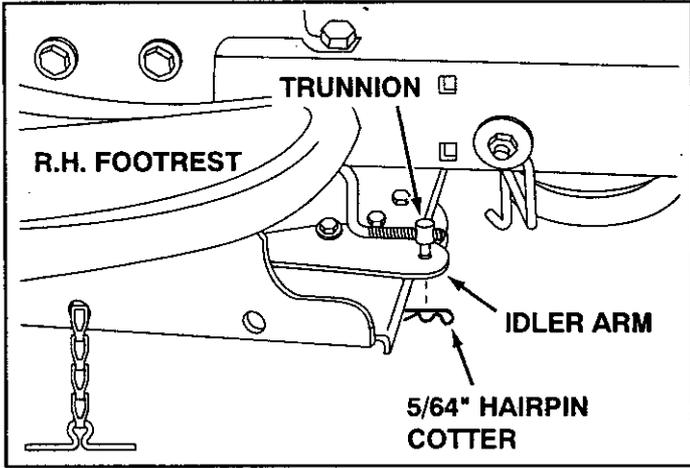


FIGURE 10 RIGHT SIDE VIEW

When assembling the belt under the tractor, hold this manual above you so that you will be viewing the belt diagram and the tractor from the same direction.

- Assemble the short "V" belt onto the engine pulley so that it passes between the pulley and the engine pulley keeper. Next assemble the belt onto the large rear pulley on top of the clutch/idler assembly, passing it between the pulley and the keeper bolt located beside the pulley. Position the idler pulley against the outside of the belt. See figure 11. **IMPORTANT:** Make sure that the "V" belt is not assembled around the outside of the engine pulley keeper or the keeper bolt.

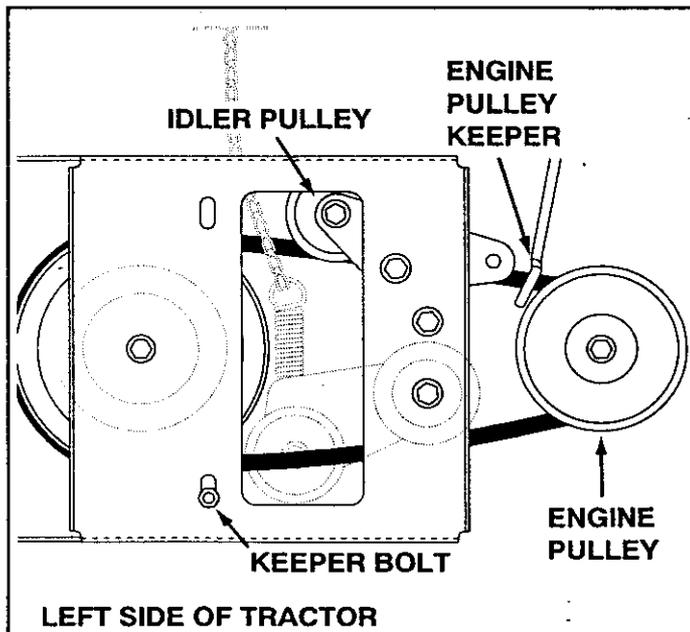


FIGURE 11 VIEWED FROM UNDERNEATH

INSTALLING THE CLUTCH/IDLER ASSEMBLY ON TRACTORS WITH ELECTRIC ATTACHMENT CLUTCHES (Use these instructions if your tractor has a push/pull switch on the dash panel for starting and stopping the mower deck.)

- Turn the clutch/idler assembly upside down and place the extra tensioning chain through the left front hole as shown in figure 12.

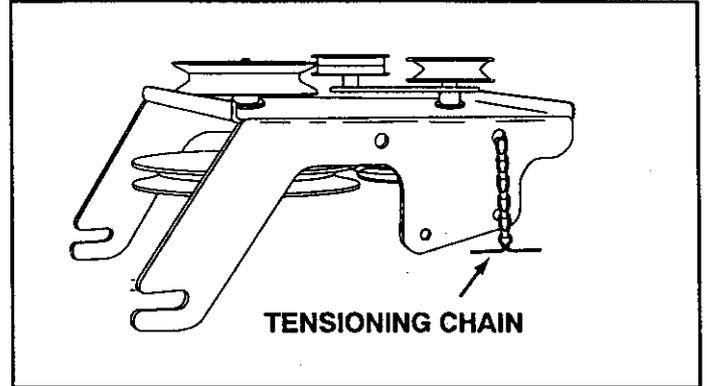


FIGURE 12

- Hook the extra spring through the end of the tensioning chain. See figure 13.
- Assemble the spring and a 3/8" hex lock nut onto the bottom of the bolt and nut which secures the idler pulley to the upper idler arm. Hold the bolt head and tighten the 3/8" hex lock nut, leaving it loose enough for the spring to pivot freely between the two nuts. See figure 13.
- Attach a 3/32" hairpin cotter to the chain, placing it in the fifth link from the spring. See figure 13.

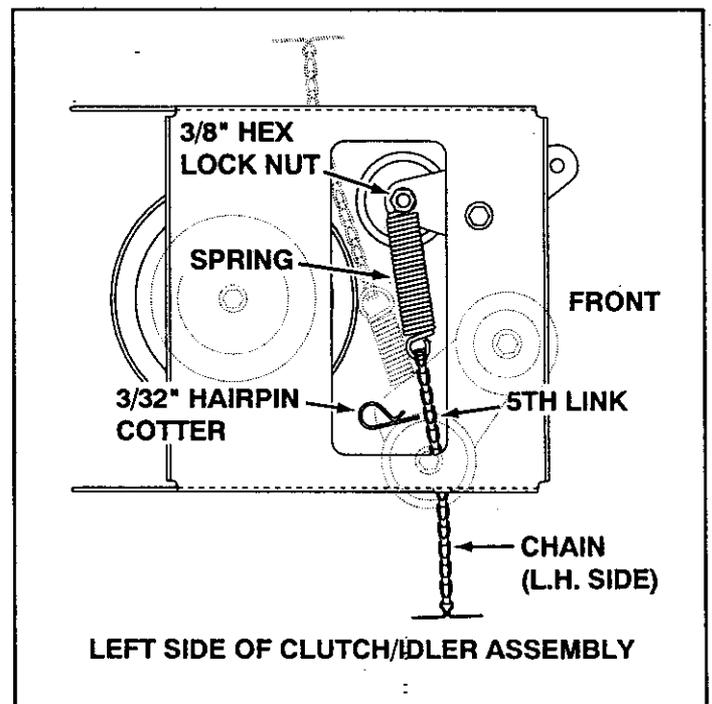


FIGURE 13 VIEWED FROM UNDERNEATH

- Attach the snow thrower's clutch/idler assembly to the tractor frame by sliding the notched arms at the rear of the assembly onto the two shoulder bolts assembled to the inside of the tractor frame. Lift the front of the assembly so that the sides fit inside the R.H. and L.H. hanger brackets. Attach the assembly to the brackets using two pivot lock pins and 1/8" hairpin cotters. See figure 14.

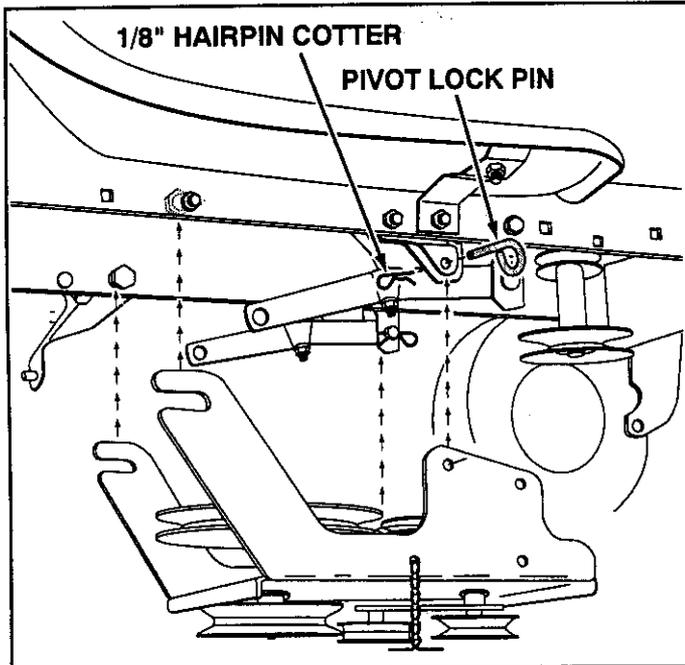


FIGURE 14 RIGHT SIDE VIEW

When assembling the belt under the tractor, hold this manual above you so that you will be viewing the belt diagram and the tractor from the same direction.

- Assemble the short "V" belt onto the engine pulley so that it passes between the pulley and the engine pulley keeper. Next assemble the belt onto the large rear pulley on top of the clutch/idler assembly, passing it between the pulley and the keeper bolt located beside the pulley. Position the idler pulley against the outside of the belt. See figure 15.
- Place tension on the belt, by pulling the left side tensioning chain as far out as the assembled hairpin cotter will allow. Secure the chain in this position with a 1/8" hairpin cotter. See figure 15.

IMPORTANT: Make sure that the "V" belt is not assembled around the outside of the engine pulley keeper or the keeper bolt.

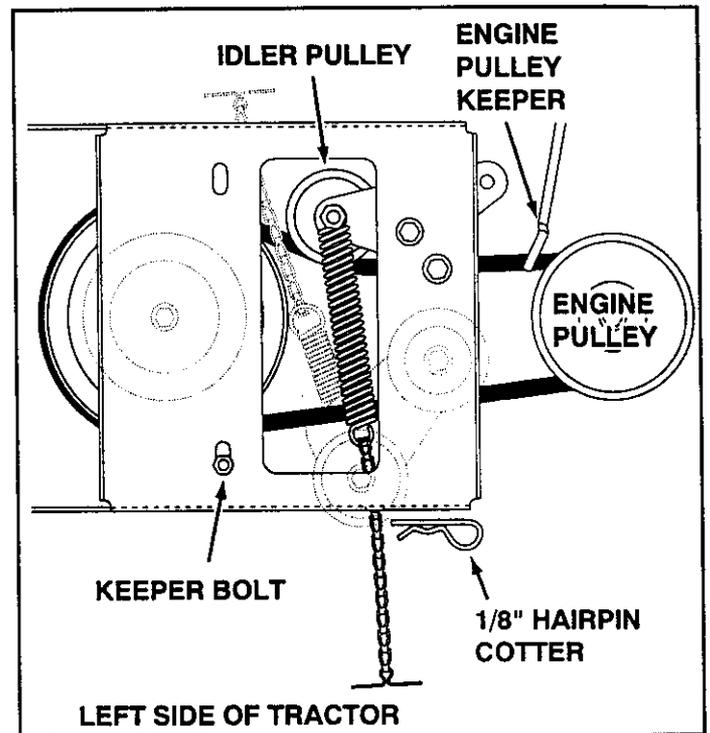


FIGURE 15 VIEWED FROM UNDERNEATH

ASSEMBLY OF 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 16.

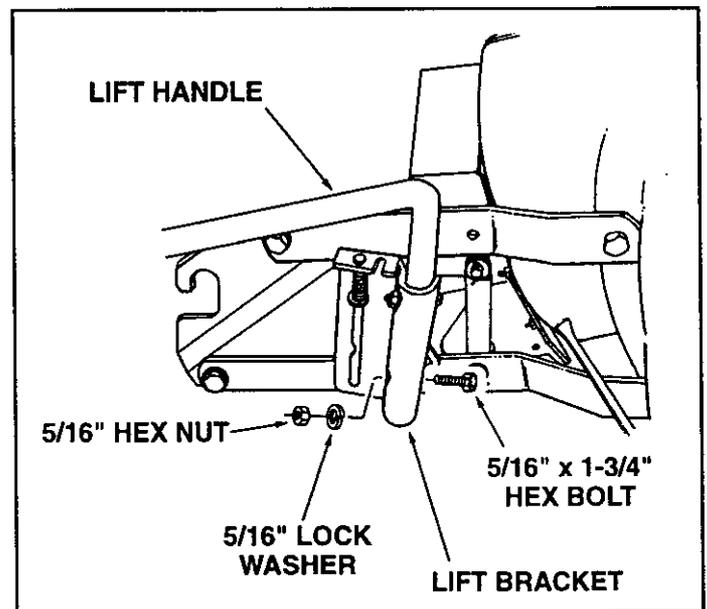


FIGURE 16 RIGHT SIDE VIEW

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

- Insert the end of the lift release cable into the hole in the lift rod. Place the cable into the slot in the top of the lift bracket, with one hex nut above the slot and one hex nut and lock washer below the slot. Tighten the nuts, adjusting them to take out excess slack in the cable wire just above the nuts. See figure 17.

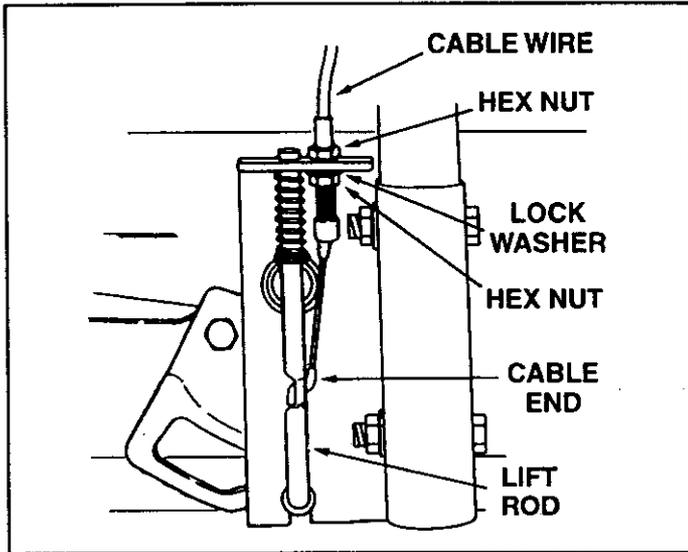


FIGURE 17 RIGHT SIDE VIEW

- Tilt the snow thrower back down to the horizontal position.
- 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 18.

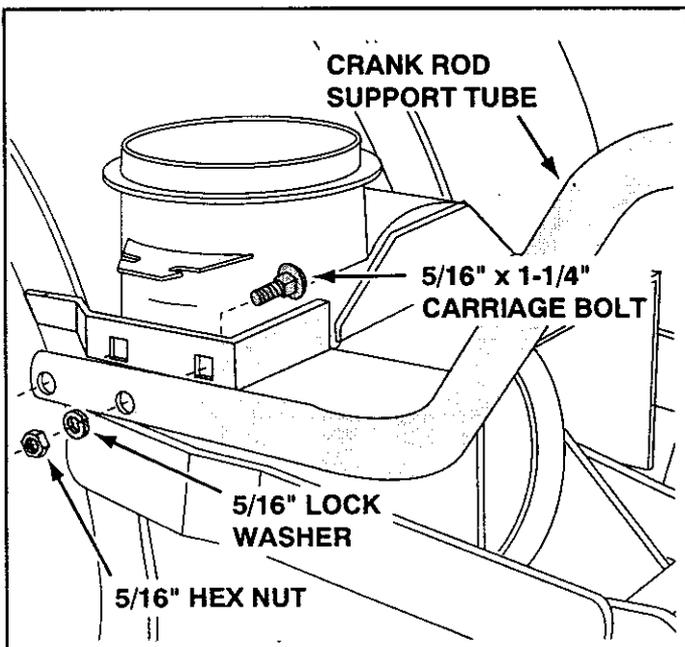


FIGURE 18 LEFT SIDE VIEW

- 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 19.

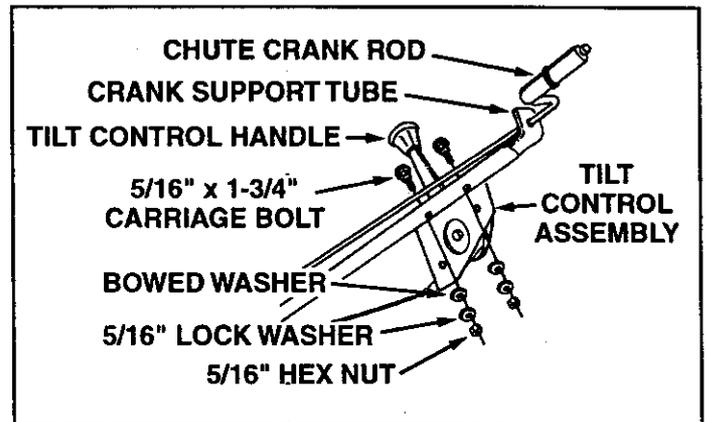


FIGURE 19 LEFT SIDE VIEW

- 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 20.

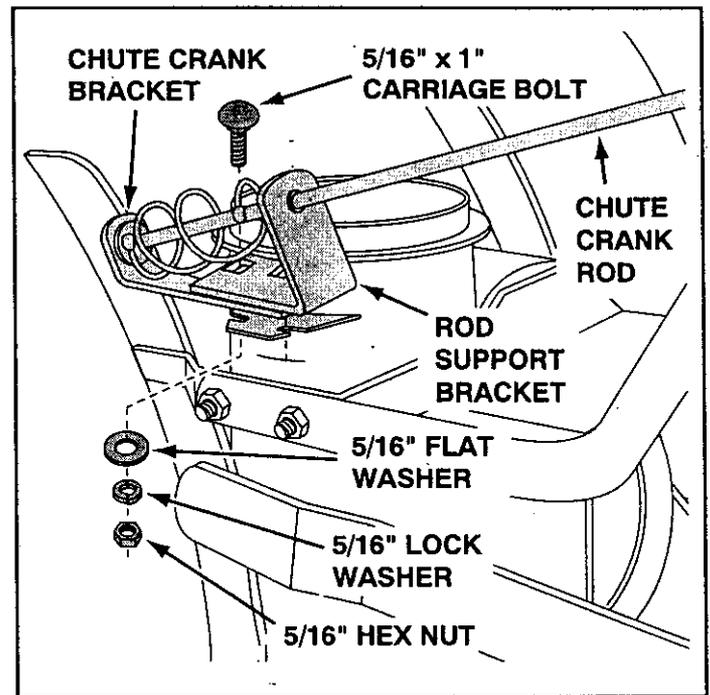


FIGURE 20 LEFT SIDE VIEW

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.

- Coat the top of the ring around the discharge opening with general purpose grease. See figure 21.
- 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 21.
- Place the plastic cap onto the short end of the anti-rotation bracket. See figure 21.
- Pull the crank rod spiral out away from the discharge chute to prevent tightness between the spiral and the notches in the chute flange. **Tighten** the nuts assembled in figure 20
- 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.

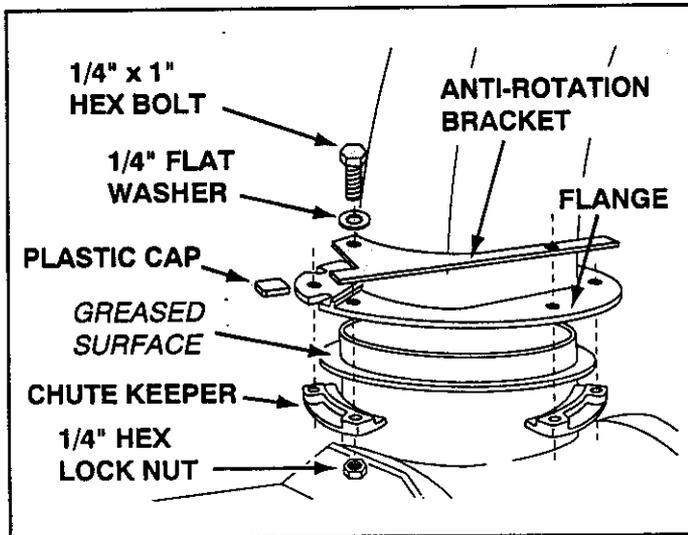


FIGURE 21

RIGHT SIDE VIEW

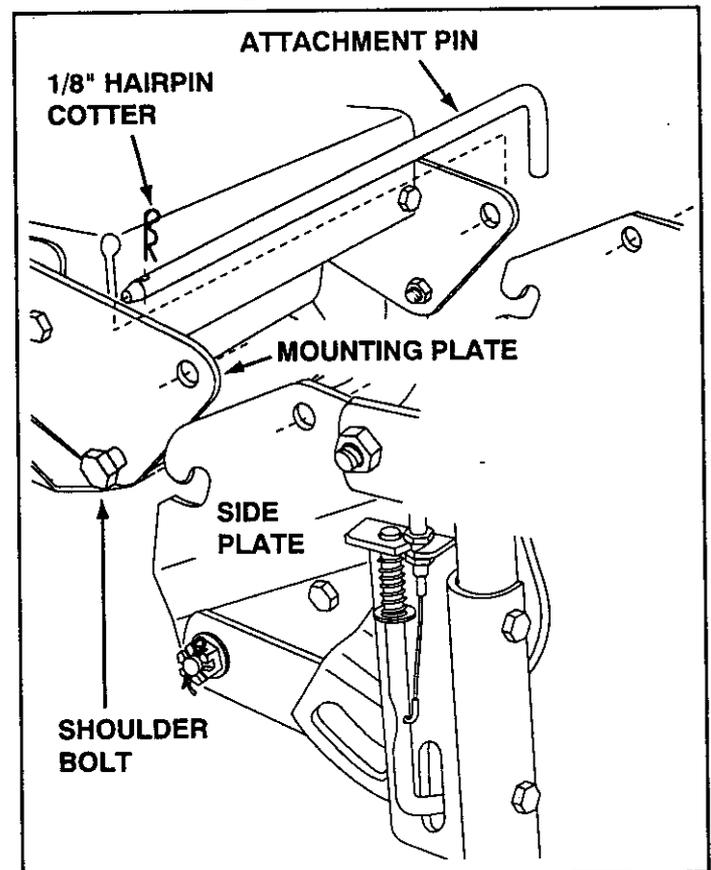


FIGURE 22

RIGHT SIDE VIEW

INSTALLING THE AUGER DRIVE BELT

When assembling the belt under the tractor, hold this manual above you so that you will be viewing the belt diagram and the tractor from the same direction.

- To attach the auger drive belt, the lift handle should be pushed down to increase slack in the belt.

- Beneath the tractor, the idler arm on the bottom of the clutch/idler assembly should be pivoted to the left side of the tractor as shown in figure 23.
- Place the auger belt around the rear pulley and between the two idler pulleys with the "V" side of the belt seated in the grooves of the "V" pulleys. See figure 23.

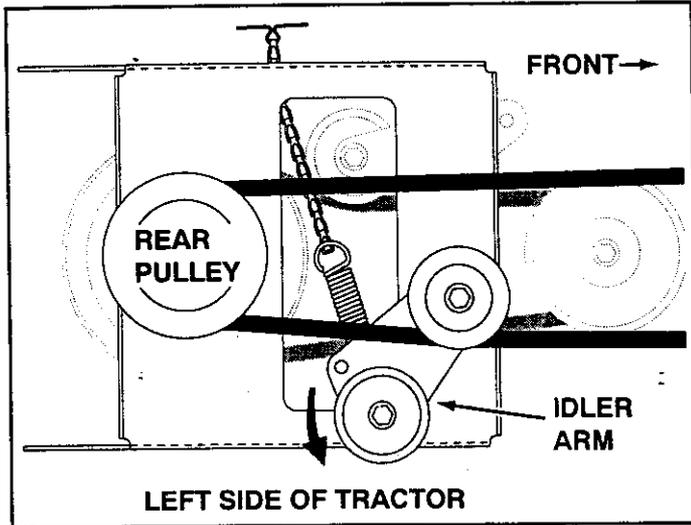


FIGURE 23 VIEWED FROM UNDERNEATH

INSTALLING THE ATTACHMENT PIN

Lift the front of the snow blower to bring the holes in the mounting plates and the side plates into alignment. 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 22.

SETTING THE BELT TENSION

To obtain the preset belt tension, pull the right side tensioning chain as tight as the pre-assembled hairpin cotter will allow. Secure the chain in this position with a 1/8" hairpin cotter. See figure 24.

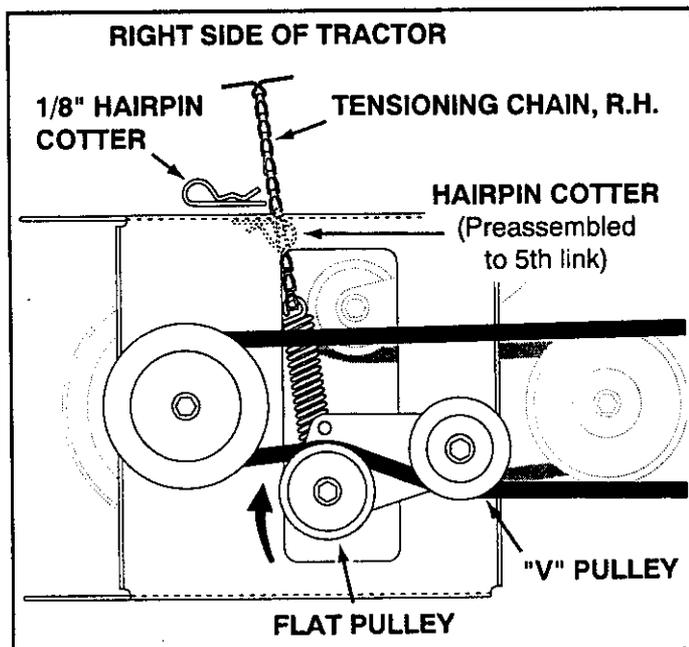


FIGURE 24 VIEWED FROM UNDERNEATH

ATTACHING WEIGHT TRAY TO TRACTOR

- Loosen the top hex bolt on each side of the tractor frame at the rear. Assemble the slots in the side braces down onto the loosened bolts. **Do not tighten yet.** See figure 25.

NOTE: If there is interference with the hex bolt when using tire chains with extra wide tires, assemble the side braces to the tractor frame using the alternate instructions with figure 27 on page 14.

- Place the weight tray on top of the tractor hitch and fasten the side braces to it using two 5/16" x 1" carriage bolts, 5/16" lock washers and 5/16" hex nuts. **Do not tighten yet.** See figure 25.
- Fasten the weight tray to the tractor hitch using a 1/2" x 1-1/4" hex bolt, a 1/2" lock washer and a 1/2" hex nut. **Do not tighten yet.** See figure 25.
- Fasten the cross brace to the side braces using two 5/16" x 1" carriage bolts, 5/16" lock washers and 5/16" hex nuts. See figure 25. **Tighten all loose bolts at this time.**

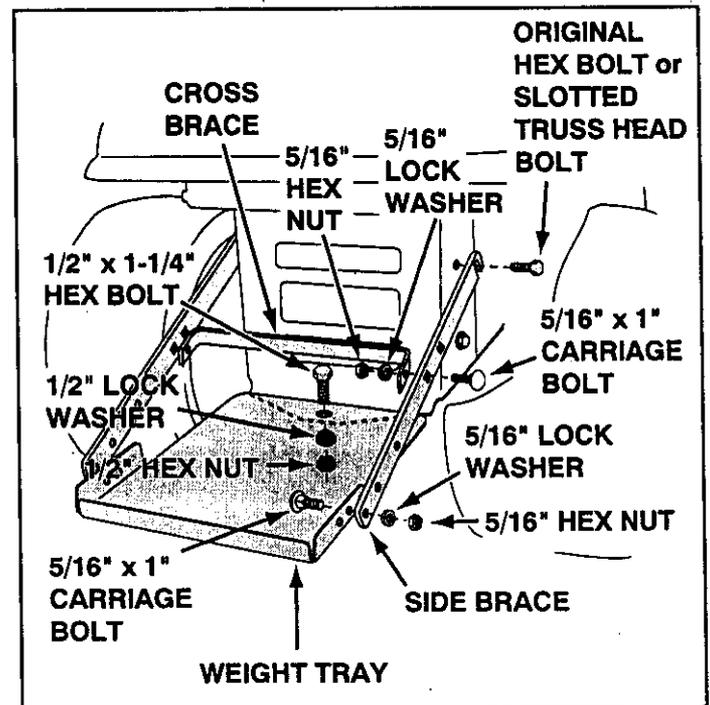


FIGURE 25

CHECKLIST

- Fill the plastic keg full of dry sand (approximately 75 lbs.) and replace the lid.
- Place the plastic keg on the weight tray. Secure the keg with the rubber tarp strap hooked into the holes in the cross brace. See figure 26.

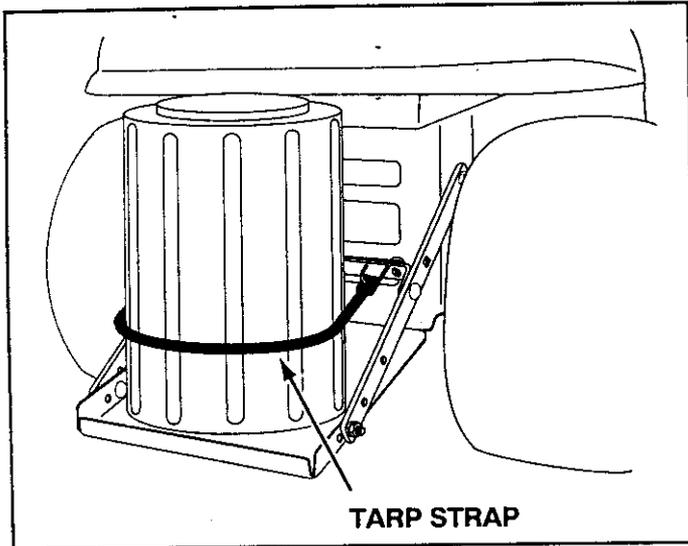


FIGURE 26

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.

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

USE THESE INSTRUCTIONS IF HEX BOLT INTERFERES WITH TIRE CHAINS

- Block up the rear of the tractor to allow removal of rear wheels.
- Remove the rear wheels from the axle, retaining the square key and all other parts for reassembly.
- Remove the hex bolt from the top hole in the side of the tractor frame as shown in figure 27.
- Assemble the notched end of each side brace to the top hole in each side of the tractor frame, using the provided 3/8-16 x 1" slotted truss head bolts. See figure 27.
- Reassemble the wheels onto the axle, making sure to reassemble the square keys and all other parts which were removed.
- Assemble the weight tray to the side braces as instructed in figure 25 on page 13.

The following additional items are available from Sears to help enhance the performance of your snow thrower.

- Tire chains which can be installed to improve traction.
- Rear wheel weights which can be installed in addition to the rear weight tray to improve traction.
- Drift cutter bars which can be installed to help slice off the edges of tall drifts.

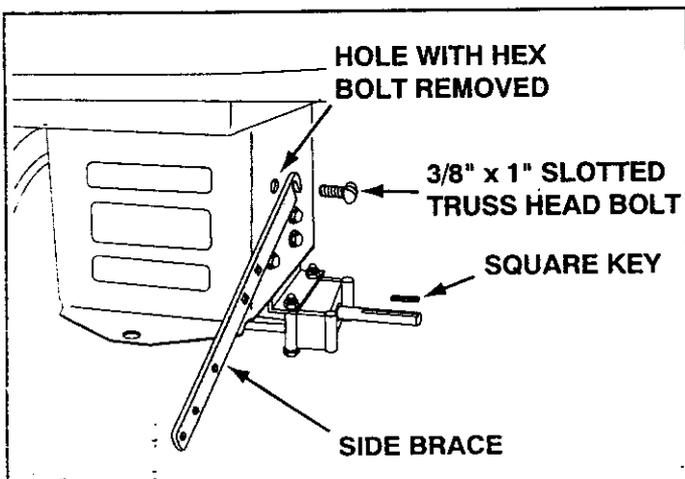


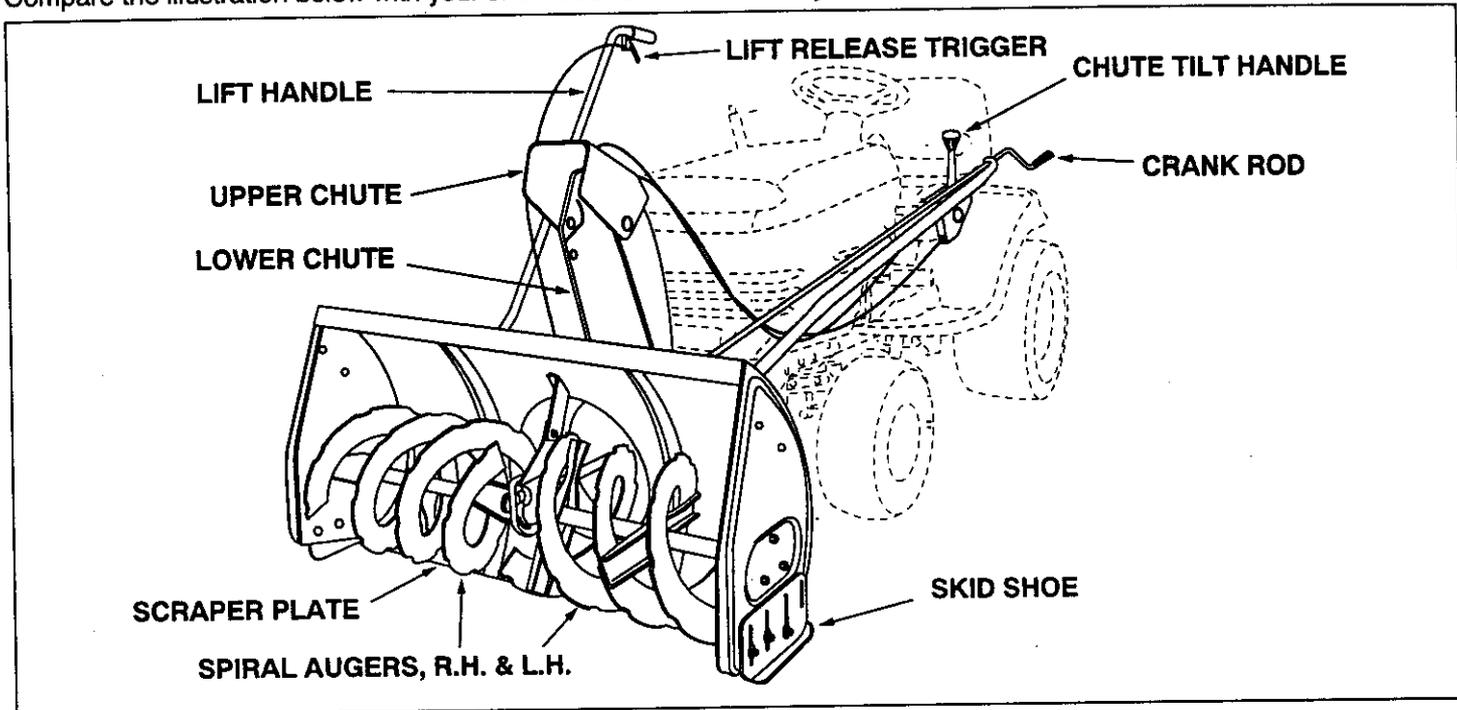
FIGURE 27

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.

HOW TO USE YOUR SNOW THROWER

BEFORE STARTING

- Use the end of assembly checklist to verify that all instructions have been properly completed.
- 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.)
- Make sure the tractor engine has the correct oil for winter operation (SAE 5W-30). Refer to tractor owner's manual.

STOPPING

- 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.

STARTING

- 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 clutch is engaged.



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

CONTROLLING SNOW DISCHARGE

- 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.
- 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 the rear weight attached to the tractor. The rear wheels will lose braking traction without the rear weight.

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.

USING THE SNOW THROWER

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.

- 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 SPEED

- 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.

DEEP OR DRIFTED SNOW

- 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.

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 for worn or damaged parts	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.

SCRAPER PLATE AND SKID SHOES

(Refer to figures 28 and 29 on page 17)

- 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.
- The skid shoes are reversible for longer life.



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 DRIVE BELT

- Lower the snow thrower to the ground.
- Remove the attachment pin. See figure 22.
- Lock the snow thrower's lift handle in the down position to decrease belt tension.
- Release the spring tension from the auger belt idler arm on the bottom of the clutch/idler assembly.
- Remove the auger drive belt from the clutch/idler assembly and from the spiral auger housing.
- 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.

Assemble the belt onto the clutch/idler assembly per the instructions on page 13.

SKID SHOE ADJUSTMENT

- 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.
- 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 to the desired position and tighten the nuts securely. Adjust both skid shoes to the same height to keep the housing and the scraper plate level. See figure 28.

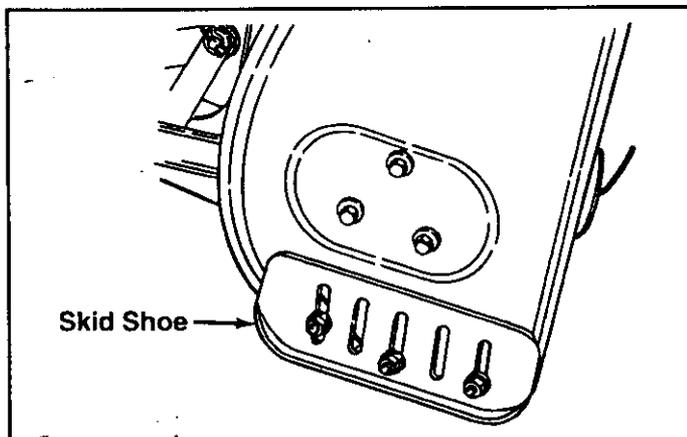


FIGURE 28

LIFT RELEASE CABLE ADJUSTMENT

- 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. See figure 17 on page 11.
- 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 17 on page 11.

DISENGAGEMENT ADJUSTMENT

(Only units with manual attachment clutches)

If the spiral auger on the snow thrower do not stop when the attachment clutch lever on the tractor is in the disengaged position, then adjustment is necessary. Proceed as follows. Refer back to figure 10.

- Place the attachment clutch lever in the disengaged position.
- Remove the hairpin cotter from the engagement rod trunnion and lift the trunnion out of the hole in the idler arm.
- Screw the trunnion a few turns towards the front end of the rod.
- 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

- 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.
- If the augers will not turn, check to see if the shear bolts have sheared. See figure 29. 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.

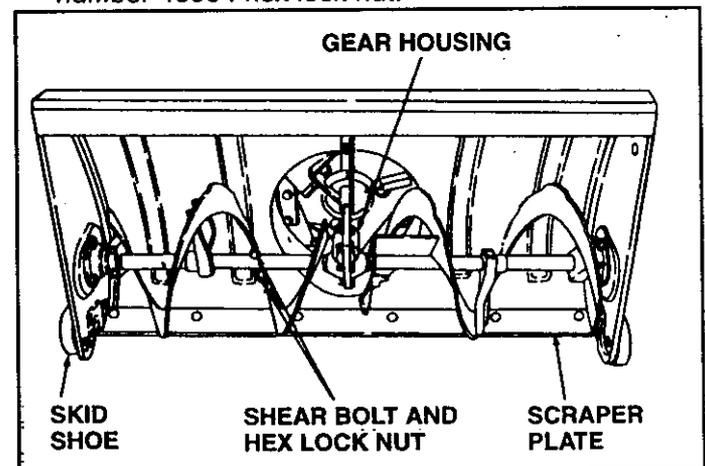


FIGURE 29

STORAGE

STORAGE RECOMMENDATIONS

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

REMOVING THE SPIRAL AUGER HOUSING

- Lower the snow thrower to the ground.
- Remove the attachment pin. See figure 22.
- Lock the snow thrower's lift handle in the down position to decrease belt tension.
- Release the spring tension from the auger belt idler arm on the bottom of the clutch/idler assembly.
- Remove the auger drive belt from the clutch/idler assembly. See figure 23.
- Pull the spiral auger housing assembly off of the tractor. See figure 22.

PARTS TO REMOVE AT END OF SEASON

- Remove the short "V" belt from the engine pulley and the clutch/idler assembly. See figure 11 or 15.
- Remove the engine pulley keeper and replace it with the tractor's original engine pulley keeper (manual attachment clutches only).
- Remove the engagement rod from the tractor's clutch arm (manual attachment clutches only). See figure 8.
- Remove the clutch/idler assembly. (The two hanger brackets and the two shoulder bolts may be left attached to the tractor frame.)
- If a rear mounted attachment is to be used, remove the rear weight tray by removing the bolt from the tractor hitch and loosening the two bolts fastening the tray's side braces to the tractor. Be sure to retighten the two bolts in the side of the tractor. See figure 25.
- 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 figure 2.

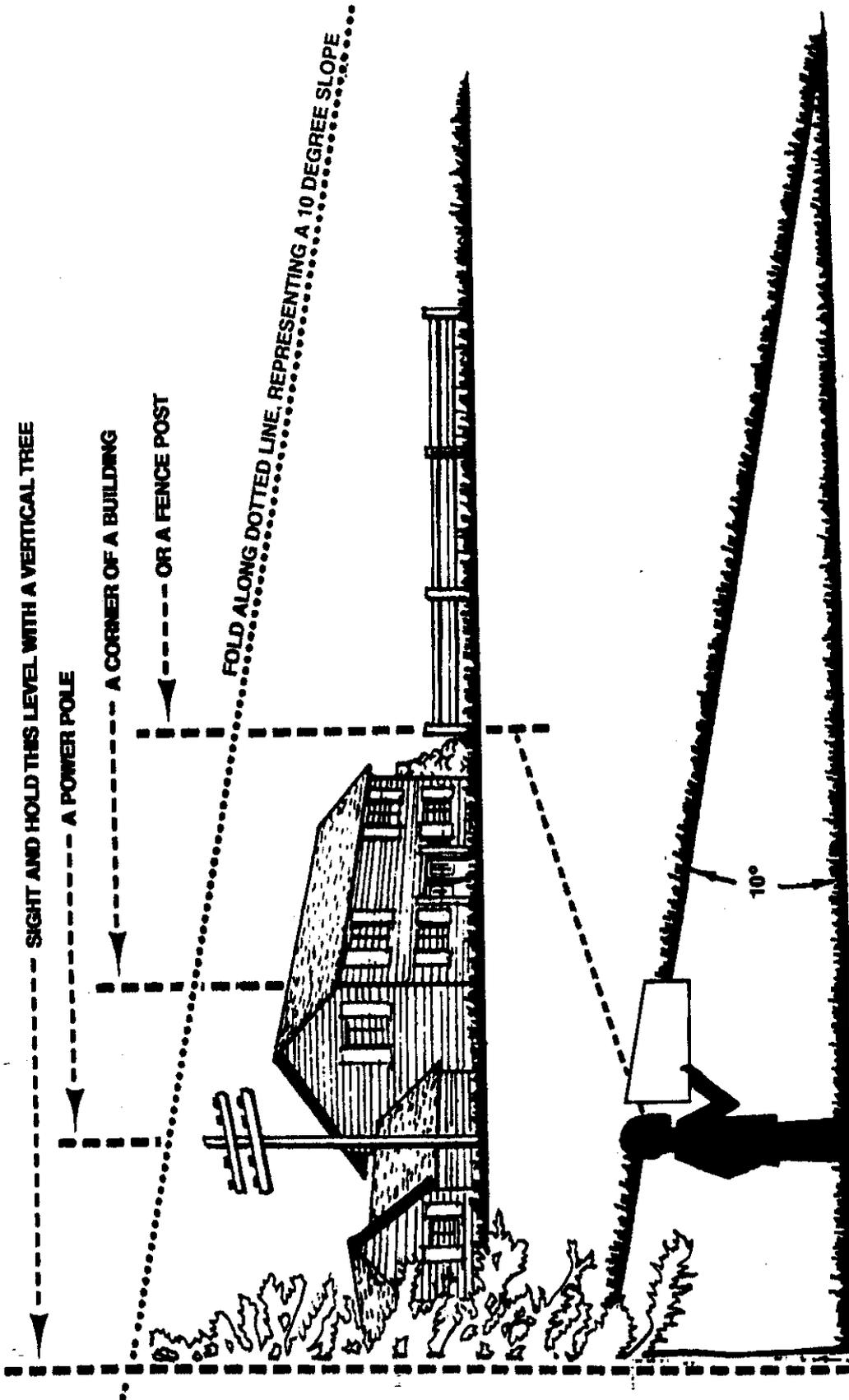
TROUBLESHOOTING

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

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.

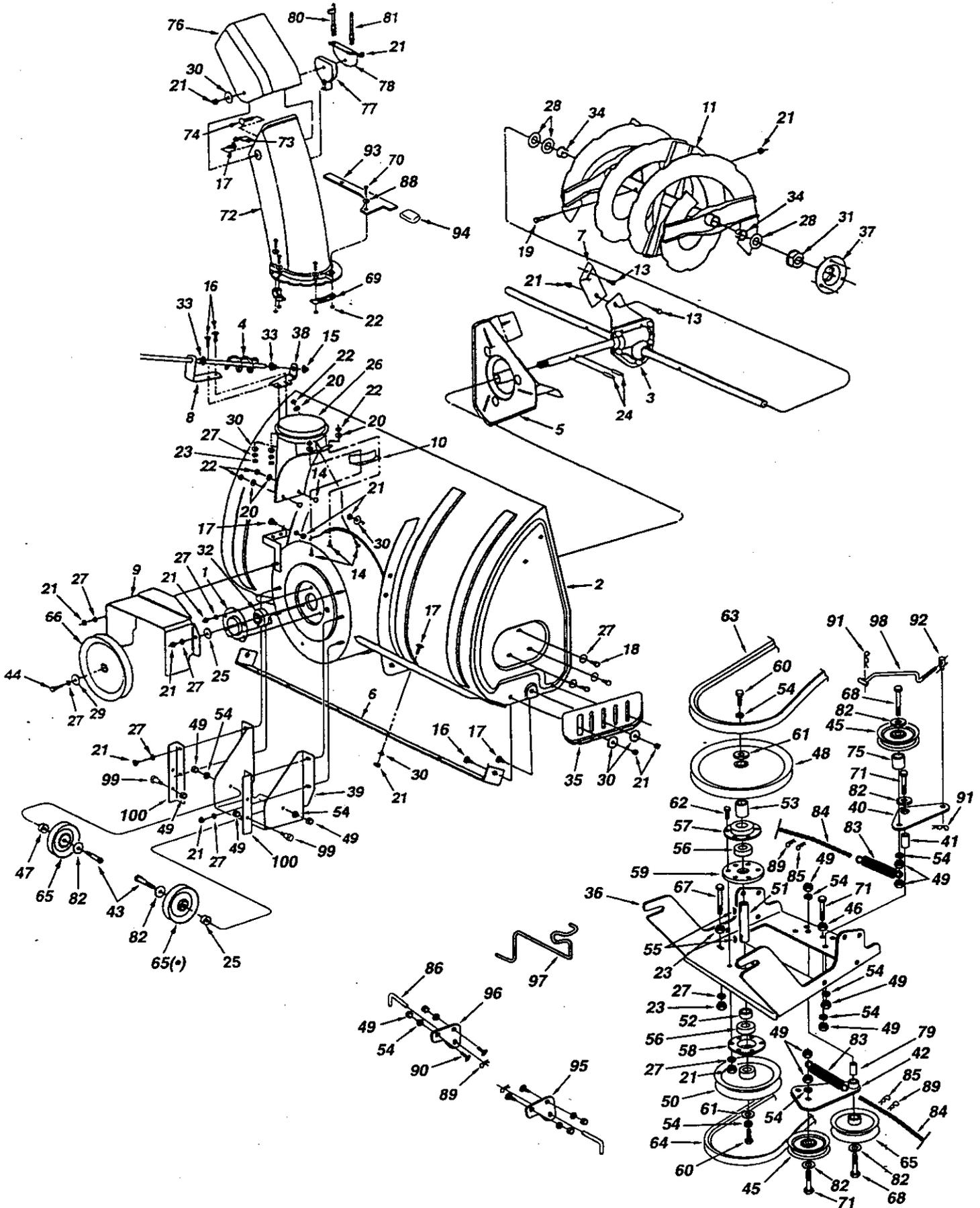


CAUTION: DO NOT OPERATE YOUR TRACTOR AND SNOW THROWER ON A SLOPE IN EXCESS OF 10 DEGREES. BE SURE OF YOUR TRACTOR'S TOWING AND BRAKING CAPABILITIES BEFORE OPERATING ON A SLOPE. AVOID ANY SUDDEN TURNS OR MANEUVERS WHILE ON A SLOPE.



PARTS

REPAIR PARTS FOR MODEL 486.248400 40" SNOW THROWER



REPAIR PARTS FOR MODEL 486.248400 40" SNOW THROWER

REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION
1	05931	1	Housing, Bearing	51	738-0680	1	Shaft
2	63562	1	Housing Assembly	52	750-0456	1	Spacer
3	618-0161A	1	Gear Assembly	53	750-0660	1	Spacer
4	63579	1	Chute Crank Rod Assembly	54	43003	13	Lock Washer, 3/8"
5	63768	1	Impeller Assembly	55	714-0161	2	Key
6	24278	1	Scraper Plate	56	741-0919	2	Bearing, Ball
7	703-2734	1	Bracket, Housing Brace	57	15296A	1	Housing, Open Bearing
8	703-2735A	1	Bracket, Chute Crank	58	08253B	1	Housing, Bearing
9	703-2736	1	Cover, Belt	59	14088B	1	Spacer, Spindle
10	705-5226	1	Chute Reinforcement	60	44377	2	Hex Bolt, 3/8-24 x 1"
11	705-5269	1	Spiral Assembly, L.H.	61	736-0247	2	Washer,
12	705-5270	1	Spiral Assembly, R.H.	62	43063	3	Hex Bolt, 5/16-18 x 1"
13	43182	2	Hex Bolt, 5/16-18 x 3/4" Lg.	63	46989	1	Belt, V Type 1/2" x 55"
14	44950	5	Carriage Bolt, 1/4-20 x 3/4"	64	47278	1	Belt, V Type 1/2" x 112"
15	44917	1	Palnut, 3/8"	65	47044	3	Pulley, V Type 4"
16	44326	4	Carriage Bolt, 5/16-18 x 1" Lg.	66	47026	1	Pulley, V Type
17	43080	12	Carriage Bolt, 5/16-18 x 3/4" Lg.	67	47025	1	Hex Bolt, 5/16-18 x 3-1/2"
18	46703	6	Bolt, Self-Tap 5/16" x 3/4"	68	43432	2	Hex Bolt, 3/8-16 x 2-1/2"
19	710-0890A	2	Bolt, Shear 5/16-18 x 1-1/2"	69	731-0851A	3	Chute Keeper
20	43088	5	Washer, 1/4"	70	43661	6	Hex Bolt, 1/4-20 x 1"
21	43064	29	Hex Lock Nut, 5/16-18 Thd.	71	43054	3	Hex Bolt, 3/8-16 x 2"
22	43013	11	Hex Lock Nut, 1/4-20	72	731-1300A	1	Chute, Lower
23	43083	4	Hex Nut, 5/16-18	73	710-0896	1	Screw, 1/4-14 x 5/8"
24	715-0114	2	Spiral Pin, 1/4" x 1-1/2" Lg.	74	43681	1	Carriage Bolt, 5/16-18 x 1-1/2"
25	750-0437	2	Bushing	75	45133	1	Spacer
26	731-1379	1	Chute Adapter	76	731-1320	1	Chute, Upper
27	43086	20	Lock Washer, 5/16"	77	731-1313B	1	Guide, Cable
28	736-0188	6	Washer, .76" x 1.49" x .06"	78	784-5594	1	Bracket, Cable
29	736-0231	1	Washer, .344" I.D. x 1.125" O.D.	79	24472	1	Spacer, Pivot
30	43081	17	Washer, 5/16" Std. Wrt.	80	746-0929	1	Cable, Chute Control With Clip
31	741-0245	2	Bearing, Flange	81	746-0928	1	Cable, Chute Control
32	741-0309	1	Bearing, Ball	82	43070	6	Washer, 3/8"
33	741-0475	2	Bushing, Plastic 3/8"	83	46959	2	Spring
34	741-0493A	4	Bearing, Split, 3/4"	84	46963	2	Chain
35	24279	2	Skid Shoe	85	43055	2	Pin, Hair Cotter, 3/32"
36	24294	1	Frame Clutch and Pulley	86	43038	2	Pin, Pivot Lock
37	784-5618	2	Housing, Bearing	88	43088	6	Washer, 1/4" 1/8"
38	24393	1	Bracket, Chute Crank	89	43343	4	Pin, Hair Cotter #4 (1/8")
39	24281	1	Bracket, Idler	90	43350	4	Carriage Bolt, 3/8-16 x 1"
40	63565	1	Idler Arm Assembly	91	47037	2	Pin, Hair Cotter 5/64"
41	24286	1	Spacer, Pivot	92	711-0198	1	Trunnion
42	63762	1	Idler Bracket Assembly	93	24394	1	Bracket, Chute Anti-rotation
43	41576	2	Hex Bolt, 3/8-16 x 1-3/4"	94	1643-60	1	Plastic Cap
44	710-0117	1	Hex Bolt, 5/16-24 x 1"	95	63566	1	Hanger Bracket Assembly, R.H.
45	756-0405	2	Pulley, Flat 3-3/4"	96	63567	1	Hanger Bracket Assembly, L.H.
46	43015	1	Hex Nut, 3/8-16	97	47043	1	Keeper, Engine Pulley
47	711-0242	1	Spacer	98	46948	1	Rod, Engagement
48	46981	1	Pulley, V Type 9"	99	738-0234	2	Bolt, Shoulder
49	43082	16	Nut, Hex Lock, 3/8-16	100	24466	2	Bracket, Down Stop
50	46982	1	Pulley, V Type 5-1/2"		47034	1	Owner's Manual

REPAIR PARTS FOR MODEL 486.248400 40" SNOW THROWER

REF. NO.	PART NO.	QTY.	DESCRIPTION	REF. NO.	PART NO.	QTY.	DESCRIPTION
1	63764	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	710-0964A	2	Hex Bolt, 5/8-18 x 1-1/4"	43	44917	1	Palnut, 3/8"
4	711-0332	2	Pin, Bracket Lift	44	43850	1	Pin, Roll 1/8" x 5/8"
5	712-0386A	2	Nut, Hex Slotted 5/8-18	45	63579	1	Assembly, Chute Crank Rod
6	43262	6	Nut, Hex Lock 1/2-13	46	784-5604	1	Handle, Chute Tilt
7	43010	2	Pin, Cotter 1/8" x 1"	47	720-0232	1	Knob
8	142	4	Pin, Cotter 1/8" x 3/4"	48	603-0302	1	Assembly, Chute Tilt Bracket
9	43093	1	Pin, Cotter 1/8" x 1-1/2"	49	731-1313B	2	Guide, Cable
10	R19171616	6	Washer, 17/32" x 1"	50	746-0928	1	Cable, Chute Control
11	736-0366	4	Washer, .64" x 1.12"	51	746-0929	1	Cable, Chute Control with Clip
12	741-0192	2	Bearing, Flange With Flats	52	43064	3	Nut, Hex Lock 5/16-18
13	783-0380	2	Link, 15.80" Long	53	43081	2	Washer, 5/16"
14	783-0381	2	Link, 11.75" Long	54	24285	1	Plate, Mounting (L.H.)
15	24476	2	Link, 4.88" Long	55	24284	1	Plate, Mounting (R.H.)
16	24311	1	Rod, Spacer	56	47093	1	Keg, Plastic
17	43063	2	Hex Bolt, 5/16-18 x 1"	57	23812	2	Brace, Side (Weight Tray)
18	43086	16	Lock Washer, 5/16"	58	24288	1	Brace, Cross (Weight Tray)
19	24298	1	Bracket, Lift	59	24289	1	Tray, Weight
20	683-0130	1	Assembly, Handle Lift Bracket	60	43001	4	Hex Bolt, 3/8-16 x 1"
21	747-3248A	1	Rod, Index Lift	61	43003	6	Lock Washer, 3/8"
22	47277	1	Screw, Hex Slotted #10	62	43082	4	Nut, Hex Lock 3/8-16
23	732-0306	1	Spring, Compression	63	43083	10	Nut, Hex 5/16-18
24	R19131316	1	Washer, 13/32" x 13/16"	64	43084	2	Hex Bolt, 5/16-18 x 1-3/4"
25	736-0400	1	Washer, .218" x .62"	65	44326	4	Carriage Bolt, 5/16-18 x 1"
26	43064	2	Nut, Hex Lock 5/16-18	66	43351	1	Hex Bolt, 1/2-13 x 1-1/4"
27	43182	2	Hex Bolt, 5/16-18 x 3/4"	67	43353	1	Lock Washer, 1/2"
28	R19111116	2	Washer, 11/32 x 11/16 x 3/64	68	43682	2	Carriage Bolt, 5/16-18 x 1-1/4"
29	47338	1	Pin, Spring 1/4" x 1-1/2"	69	43790	1	Strap, Tarp 25" Long
30	46954	1	Pin, Attachment	70	44215	2	Carriage Bolt, 5/16-18 x 1-3/4"
31	43343	1	Pin, Haircotter #4 (1/8")	71	44695	2	Washer, Bowed
32	24354	1	Plate, Side (R.H.)	72	712-0206	1	Nut, Hex 1/2-13
33	24283	1	Plate, Side (L.H.)	73	738-0234	4	Bolt, Shoulder
34	750-1028A	1	Tube, Lift Handle	74	726-0178	3	Tie, Nylon
35	746-3060	1	Cable, Lift	75	63755	1	Assembly, Cable Release Trigger
36	712-0127	1	Nut, Flat Weld #10-24	76	47317	1	Plastic Cap
37	710-1233	1	Screw, Oval #10-24 x 1"	77	43601	1	Washer, 1.59" x 1.032" x .060"
38	46446	1	Grip, Handle	78	47336	1	Pin, Spring 5/32" x 1-1/2"
39	47027	1	Tube, Crank Rod Support	79	47361	2	Slotted Truss Hd. Bolt, 3/8-16 x 1"
40	741-0475	2	Bushing, 3/8" Plastic				

For in-home major brand repair service:

Call 24 hours a day, 7 days a week

1-800-4-MY-HOMESM (1-800-469-4663)

Para pedir servicio de reparación a domicilio – 1-800-676-5811

In Canada for all your service and parts needs call – **1-800-665-4455**
Au Canada pour tout le service ou les pièces

For the repair or replacement parts you need:

Call 7 am – 7 pm, 7 days a week

1-800-366-PART (1-800-366-7278)

Para ordenar piezas con entrega a domicilio – 1-800-659-7084

For the location of a Sears Parts and Repair Center in your area:

Call 24 hours a day, 7 days a week

1-800-488-1222

**For information on purchasing a Sears Maintenance Agreement
or to inquire about an existing Agreement:**

Call 9 am – 5 pm, Monday – Saturday

1-800-827-6655



The Service Side of SearsSM