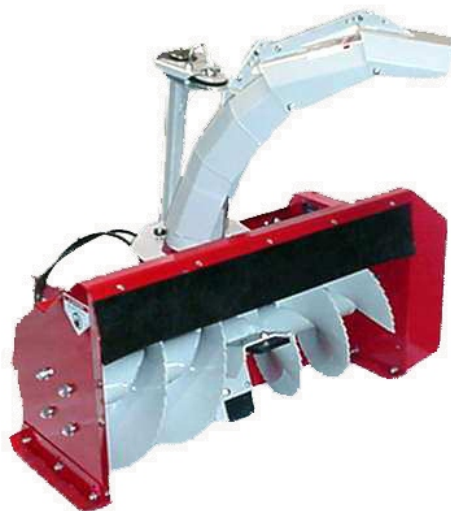




# OWNER/OPERATOR'S MANUAL & PARTS LIST

## SNOWBLOWER

MODEL LS420





Orrville, OH

[www.ventrac.com](http://www.ventrac.com)

## TO THE OWNER

*Congratulations on the purchase of a new VENTRAC **LS420 Snow Blower!** The purpose of this manual is to assist you in its safe and effective operation and maintenance.*

*With proper usage and care, the **Snow Blower** will provide many years of service. Please read and understand this manual entirely before using the **Snow Blower**. Keep this manual on file for future reference.*

*Always give Model and Serial # when ordering service parts.*

*Please fill in the following information for future reference:*

Date of Purchase: Month \_\_\_\_\_ Day \_\_\_\_\_ Year \_\_\_\_\_

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Dealer: \_\_\_\_\_

Dealer Address: \_\_\_\_\_

Dealer Phone Number: \_\_\_\_\_

Dealer FAX Number: \_\_\_\_\_

Venture Products Inc. reserves the right to make changes in design or specifications without incurring obligation to make like changes on previously manufactured products.

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# INTRODUCTION

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## Product Description

The Ventrac Model LS420 Snowblower is a unique high capacity snowblower that combines the simplicity and economy of a single stage blower with the high performance of a two stage blower.

An aggressive double spiral auger from each side converges separately on each of the four rotor paddles. The saw-tooth auger perimeter, the sure-fed center paddles and the high velocity discharge make a powerful, efficient snow moving attachment for the Ventrac 3000.

### Ventrac LS420 Specifications

<b>Width</b> . . . . .	<b>42 inches</b>
<b>Height</b> . . . . .	<b>42 inches</b>
<b>Length</b> . . . . .	<b>36 inches</b>
<b>Weight</b> . . . . .	<b>350 pounds</b>

# SAFETY

## DECALS

The following decals must be maintained on your Ventrac snowblower. If any decals are faded or missing, contact the factory promptly for replacements.



A



B



C



D

















E

Decal	Page & Location	Description	Part Number
A	E-3, #10 (2)	Keep Hands and Feet Away	00.0123
B	E-3, #26	High Pressure Fluid Hazard	00.0103
C	E-3, #23	Hazard-Moving Part	00.0101
D	E-7, #14	Thrown Object Hazard	00.0122

# SAFETY

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## Safety

-  Please read and understand this manual before operating the equipment.
-  Always use proper safety precautions. Observe all safety decals.
-  Before adjusting, cleaning, lubricating, or changing parts on the blower, set tractor brake, stop the engine and remove ignition key.
-  All shields and guards must be in place during operation.
-  Be sure attachment is locked securely to tractor (power unit) before operating.
-  Be sure bystanders are clear of tractor and blower before operating.
-  Never allow anyone to ride on the blower or tractor. Be especially careful and observant when people are present. Never drive or blow snow toward people.
-  Never assume that bystanders will remain where you saw them last.
-  Always look in the direction the tractor is moving.
-  Be alert for any sign of equipment failure. An unusual noise can be a sign or warning of something needing immediate attention.
-  Never direct the discharge chute toward people, animals, buildings, vehicles or objects of value.
-  **Operate the blower in the float position on hard surfaces.** On gravel and/or to increase front tire traction, lift and carry the blower.
-  Do not blow snow that contains stones, sticks or other foreign objects that may be thrown.
-  Use common sense!





**This symbol identifies potential health and safety hazards. It marks safety precautions!!**


# SAFETY


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## Safety Operation & Techniques

 The snowblower is an aggressive power attachment for moving snow, especially snow that may be too deep for a snow plow or that needs to be piled or thrown some distance.

 The design and the power used to move snow must be effective to break up snow and to throw it for relocation. This also makes the snowblower a lethal “weapon” when misused. Operators should be extremely careful never to direct the snow blower attachment or its discharge chute toward people or anything of value. Even discharged snow from the machine can be solid enough to cause serious injury. Frozen snow, ice, gravel and other objects can be thrown at deadly speeds.

 Operators should know the area being cleared and make preparations ahead of time. Place guide stakes appropriately, remove stones or markers of any kind that will become invisible after a snow fall. Curbs, offsets, steps, manholes, broken pavement, etc. should be noted. Operators are encouraged to map the area(s) to be cleared before the snow fall season to remind the operator of potential hazards. If an area is to be cleared that is unfamiliar to the operator, travel slowly and use EXTREME CAUTION. Inquire of anyone who might know of potential hazards.

 The operator should never proceed if visibility is poor. Keep the tractor windshield clear, wait for blinding snow storms and squalls to subside and discharge snow with the wind direction as much as possible.

 Extra care should be used when clearing snow from gravel drive and road ways. Adjust the skid shoes to an appropriate setting. The snow blower may be lifted by the tractor hitch to a height that avoids picking up gravel.

 Never attempt to clean out the snow blower or work on, fix or maintain any part with the tractor running. **ALWAYS stop the engine and remove the key!**












**This symbol identifies potential health and safety hazards. It marks safety precautions!!**

# SAFETY

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## Rotating Augers Are Dangerous

-  **DO NOT let children or any untrained person operate tractor/blower.**
-  **Shut off PTO when you are not blowing snow.**
-  **Use extra care when you come to shrubs, trees, or other objects that may block your vision.**
-  **Cooperate with the direction of wind as much as possible. Discharging snow against the wind reduces the throw distance and generally reduces visibility by creating a “snow storm” effect.**
-  **DO NOT operate tractor if you are under the influence of alcohol, drugs or not feeling well.**
-  **Always stop the blower and engage the park brake before dismounting to adjust the end deflector or the discharge chute. Shut off the tractor engine before attempting to clean or unplug the blower.**
-  **Many different circumstances and situations can occur for which the operator must determine a safe way to operate the tractor and snow blower. Always follow safety procedures and always use common sense.**
-  **Approach every task with an underlying consideration for your safety as well as for the safety of anyone who happens to be near your work area. Make sure that all operators of this equipment are thoroughly trained in using it safely.**
-  **Never direct the discharge chute toward people or anything that could be damaged by a thrown object!**
-  **Always “play it safe!” Snow removal can be very important, even urgent, but one careless move can be far more serious!**



# OPERATION

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## Operating Instructions

### Attaching:

The parked snow blower will have its hitch arms positioned for reattachment.

1. Drive the tractor slowly into the hitch arms. Align the hitch arms with the mating arms on the blower. It may be necessary to slightly raise or lower the hitch to complete the engagement.
2. Once completely engaged, close the front hitch latch.
3. Stop the tractor engine.
4. Place attachment belt over the PTO drive pulley on the tractor.
5. Engage the PTO spring tension lever. (Make sure the belt is properly engaged in each pulley).
6. Couple the discharge chute hoses to the right side quick couplers.
7. **Always direct discharge chute toward open areas.**

### Detaching:

Reverse the above process.

# MAINTENANCE

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## BEARING LUBRICATION

A bearing on each end of the auger rotor should be greased with 1 to 2 pumps of grease at the beginning and end of the season. Before storing, run the auger for a minute or two to distribute the new grease throughout the bearing.

## GEARBOX LUBRICATION

EP 80-90 weight gear lube is recommended. Lubricant level should be checked before the unit is placed in service and periodically thereafter. Fill unit approximately half full. Lubricant should be changed after the first 100 hours or 30 days of operation. Then change at the end of each season to remove moisture and corrosive contaminants.

## BELT REPLACEMENT

PTO belt from the VENTRAC 3000 to the snow blower gearbox pulley is listed on page E-10.

The two (2) auger drive belts are B42.

A small A20 V-belt rotates the discharge chute. It is tensioned by the chute pivot bolt. Loosen the lower nut and move the pivot bolt in the mounting slot enough to create enough tension to operate the chute in the full 180 degree arc. The belt will slip enough to reposition itself with the 180 degree arc by a full stroke of the cylinder in both directions.

# **MAINTENANCE**

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## **CHUTE ADJUSTMENT**

1. The discharge deflectors can be hand adjusted to several different settings. Release the links by a side pull and move the deflectors to the desired angles and re-engage the links.

2. At the base of the discharge chute are four (4) composite rollers. Each is adjustable in a mounting slot. Rollers should be free to turn but otherwise secured firmly to the frame. Discharge chute rollers can be adjusted to reduce misalignment, vibration or looseness.

## **SKID SHOE ADJUSTMENT**

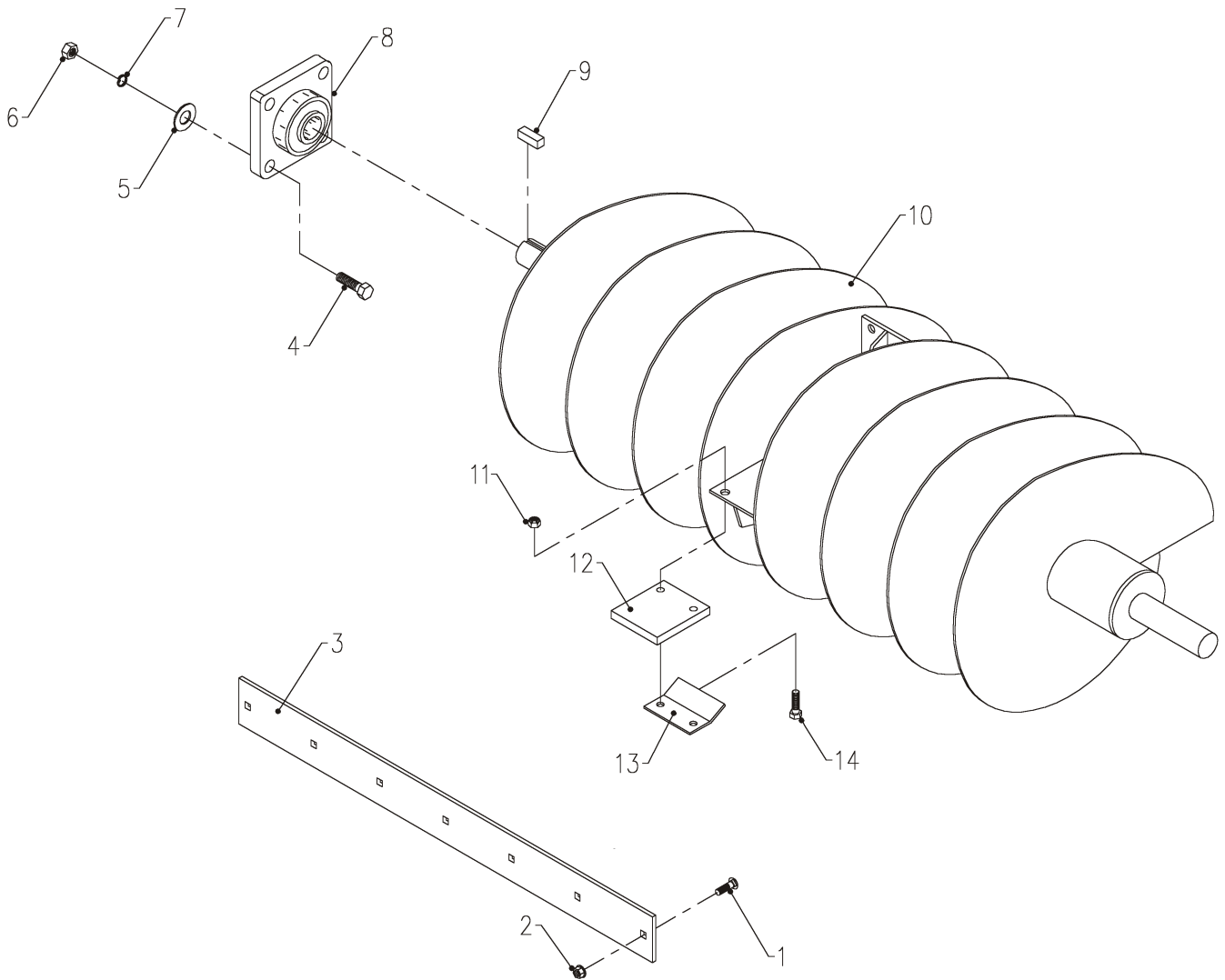
1. Skid shoes are provided to lift the blower especially when clearing snow on gravel drives and roadways. Several mounting positions are available. After adjusting, be sure to secure each of the three (3) skid bolts properly.

2. At the base of the discharge chute are four (4) composite rollers. Each is adjustable in a mounting slot. Rollers should be free to turn but otherwise secured firmly to the frame. Discharge chute rollers can be adjusted to reduce misalignment, vibration or looseness.

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# PARTS

## ILLUSTRATED DRAWING AUGER & CUTTING EDGE



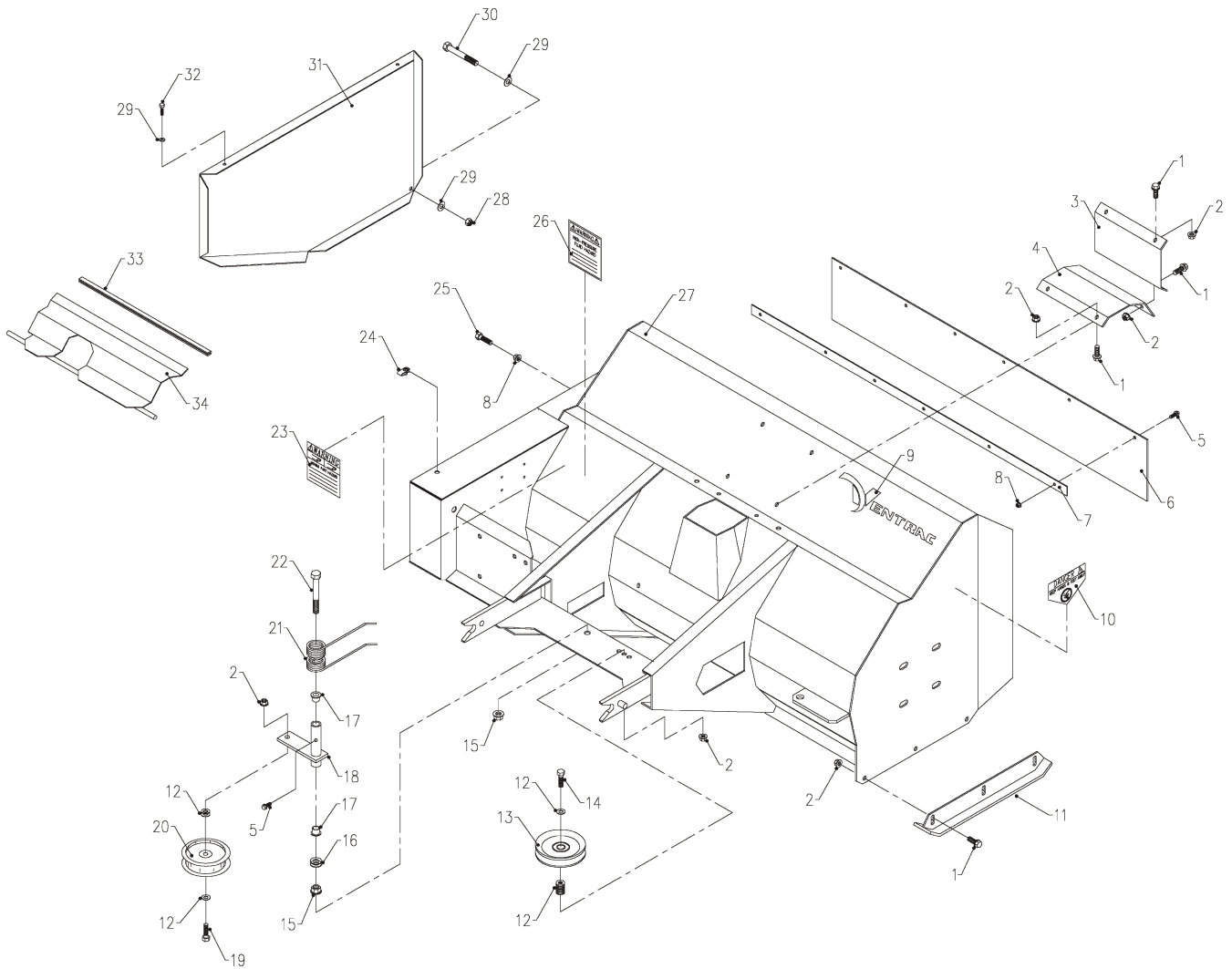
# PARTS

## AUGER & CUTTING EDGE

REF.	PART NO.	DESCRIPTION	QTY.
1	97.0606.	3/8-16 X 3/4 Carriage Bolt . . . . .	6
2	99.SF06	3/8-16 Flange Nut . . . . .	6
3	78.0045.	Cutting Edge . . . . .	1
4	90.0812.	1/2-13 x 1-1/2 Bolt . . . . .	8
5	95.08 . . . . .	1/2" SAE Washer . . . . .	8
6	92.08 . . . . .	1/2-13 Nut . . . . .	8
7	96.08 . . . . .	1/2" Lock Washer . . . . .	8
8	55.FB22024 . . . . .	1-1/2" Flange Block Bearing . . . . .	2
9	85.K0610. . . . .	3/8" x 1-1/4 Key . . . . .	1
10	80.0308. . . . .	Auger . . . . .	1
11	99.A06 . . . . .	3/8-16 Lock Nut . . . . .	8
12	44.0181. . . . .	Rubber Paddle . . . . .	4
13	64.0875. . . . .	Paddle Clamp Plate . . . . .	4
14	90.0610. . . . .	3/8-16 x 1-1/4 Bolt . . . . .	8

# PARTS

## ILLUSTRATED DRAWING MAIN FRAME



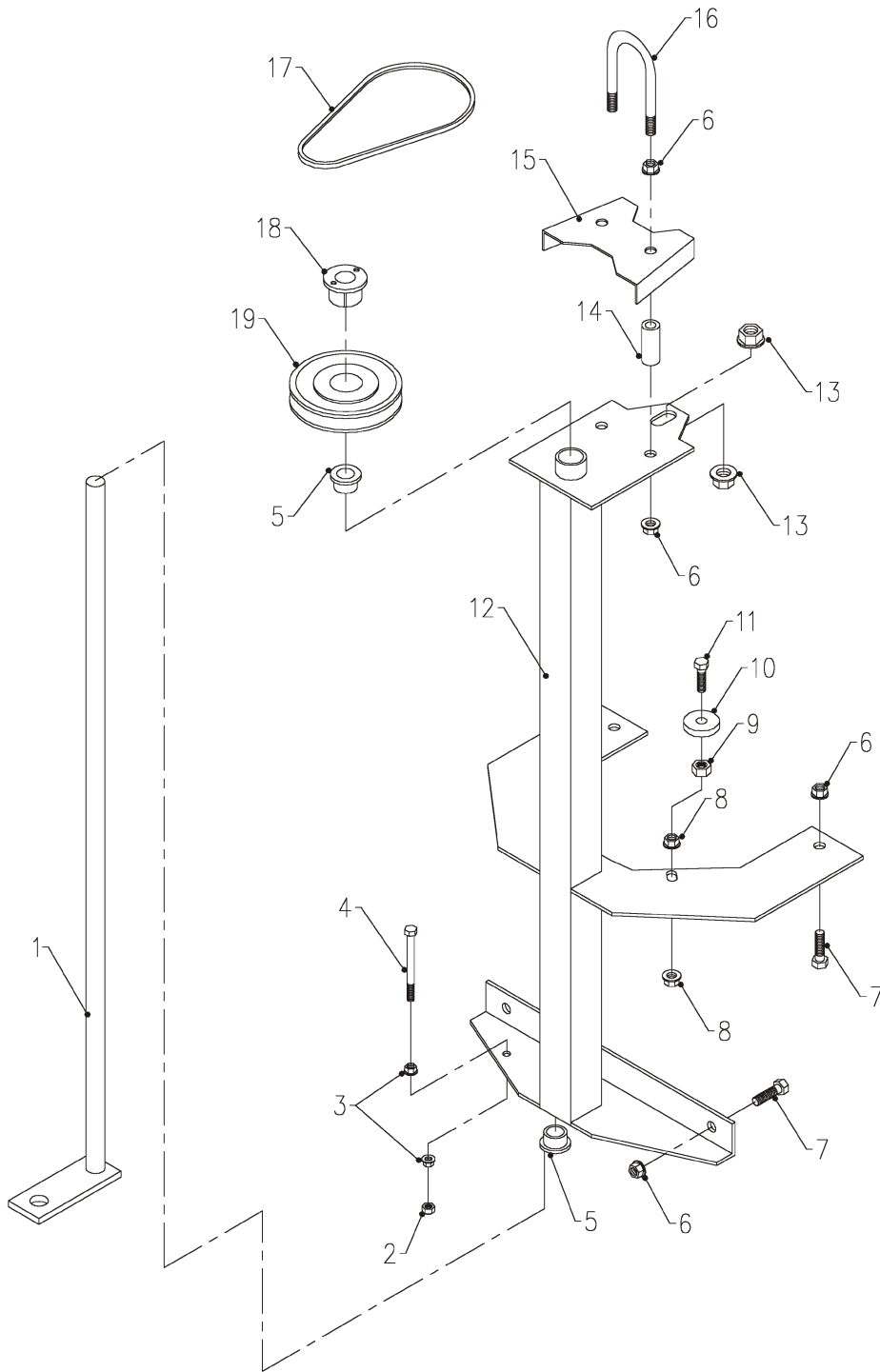
# PARTS

## MAIN FRAME

REF.	PART NO.	DESCRIPTION	QTY.
1	99.SF0606	3/8-16 x 3/4 Flange Bolt	12
2	99.SF06	3/8-16 Flange Nut	14
3	64.0831	Snow Guide Bracket Support	1
4	64.0830	Snow Guide Bracket	1
5	99.SF0404	1/4-20 x 1/2 Flange Bolt	6
6	44.0182	Belting Curtain	1
7	64.0879	Belting Clamp Bar	1
8	99.SF04	1/4-20 Flange Nut	7
9	00.0189	Decal - Ventrac	1
10	00.0123	Decal - Keep Hands and Feet Away	2
11	62.0875	Skid Shoe	2
12	95.06	3/8" SAE Washer	10
13	83.0038	4-1/4" V-Idler Pulley	1
14	90.0614	3/8-16 x 1-3/4 Bolt	1
15	99.SF08	1/2-13 Flange Nut	2
16	95.08	1/2" SAE Washer	2
17	85.B0027	1/2" ID x 5/8 OD Bushing	2
18	40.0288	Drive Belt Tension Arm	1
19	90.0612	3/8-16 x 1-1/2 Bolt	1
20	83.0037	4" Flat Idler Pulley	1
21	41.0065	Double Torsion Spring	1
22	90.0844	1/2-13 x 5-1/2 Bolt	1
23	00.0101	Decal - Hazard - Moving Part	1
24	99.E0046	1/4-20 U-Nut	2
25	90.0412	1/4-20 x 1-1/2 Bolt	1
26	00.0103	Decal - High Pressure Fluid Hazard	1
27	62.0880	Main Frame	1
28	99.A04	1/4-20 Lock Nut	2
29	95.04	1/4" SAE Washer	6
30	90.0426	1/4-20 x 3-1/4 Bolt	2
31	60.0776	Side Belt Cover	1
32	90.0406	1/4-20 x 3/4 Bolt	2
33	06.0042-16IN.	Trim Lock x 16"	1
34	64.0883	Belt Cover	1

# PARTS

## ILLUSTRATED DRAWING TOWER PARTS





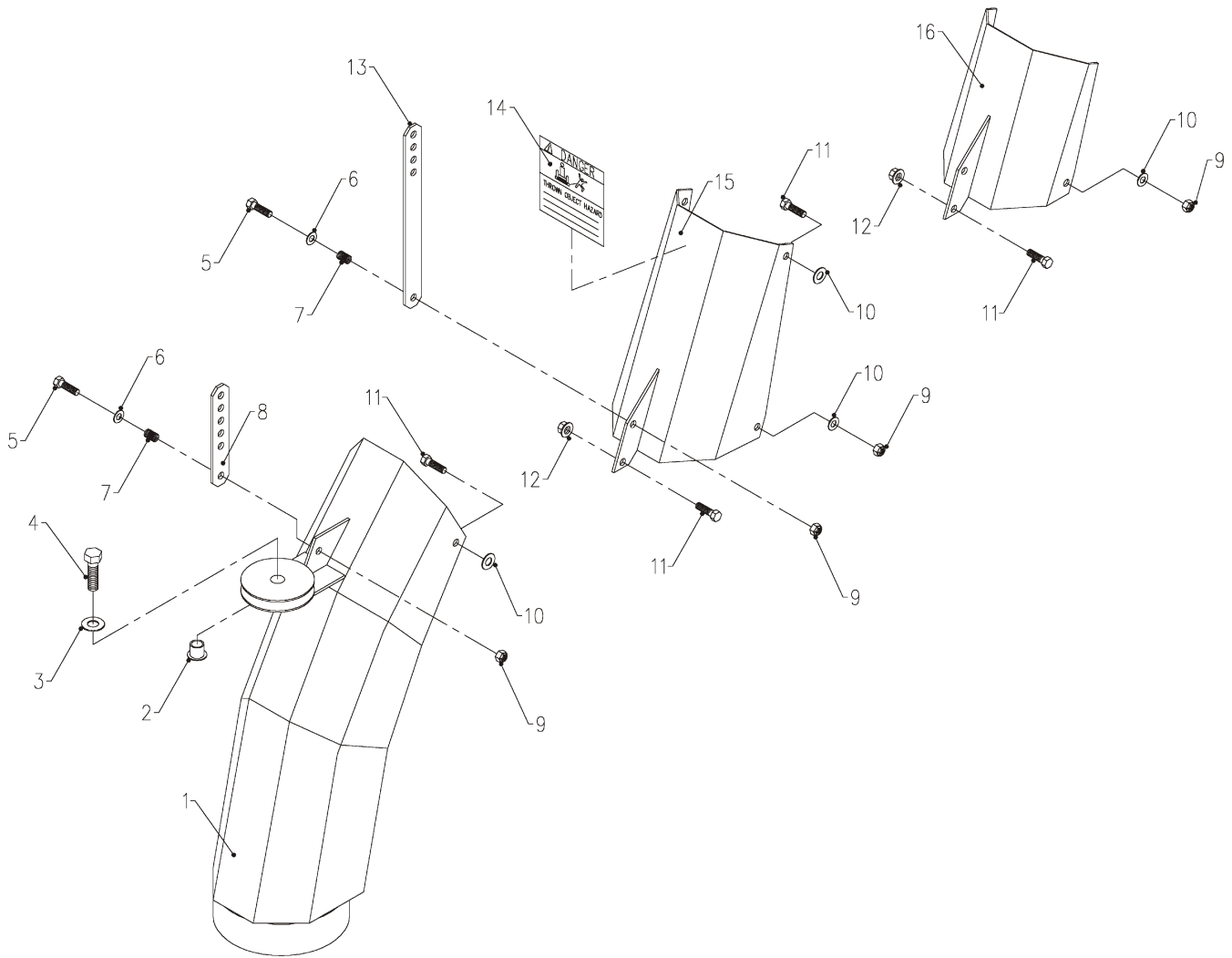
# PARTS

## TOWER PARTS

REF.	PART NO.	DESCRIPTION	QTY.
1 . . . . .	64.0828. . . . .	Cylinder Rotation Rod . . . . .	1
2 . . . . .	99.A04 . . . . .	1/4-20 Lock Nut . . . . .	1
3 . . . . .	99.SF04 . . . . .	1/4-20 Flange Nut . . . . .	2
4 . . . . .	99.F0040 . . . . .	1/4-20 Spring Anchor Bolt . . . . .	1
5 . . . . .	85.B0065. . . . .	5/8" ID x 13/16 OD Bushing . . . . .	2
6 . . . . .	99.SF06 . . . . .	3/8-16 Flange Nut . . . . .	8
7 . . . . .	90.0606. . . . .	3/8-16 x 3/4 Bolt . . . . .	4
8 . . . . .	99.SF05 . . . . .	5/16-18 Flange Nut . . . . .	8
9 . . . . .	92.06 . . . . .	3/8-16 Nut . . . . .	4
10 . . . . .	05.0069. . . . .	Nylon Washer . . . . .	4
11 . . . . .	90.0510. . . . .	5/16-18 x 1-1/4 Bolt . . . . .	4
12 . . . . .	62.0874. . . . .	Chute Mount Post . . . . .	1
13 . . . . .	99.SF08 . . . . .	1/2-13 Flange Nut . . . . .	2
14 . . . . .	64.0836. . . . .	Cap Plate Spacer . . . . .	2
15 . . . . .	60.0773. . . . .	Cap Plate . . . . .	1
16 . . . . .	11.0055. . . . .	3/8-16 x 1-1/2 U-Bolt. . . . .	1
17 . . . . .	81.A020 . . . . .	A20 Belt . . . . .	1
18 . . . . .	83.H10 . . . . .	5/8" H Bushing. . . . .	1
19 . . . . .	83.AK51H . . . . .	5.1" AK Pulley . . . . .	1

# PARTS

## ILLUSTRATED DRAWING CHUTE PARTS



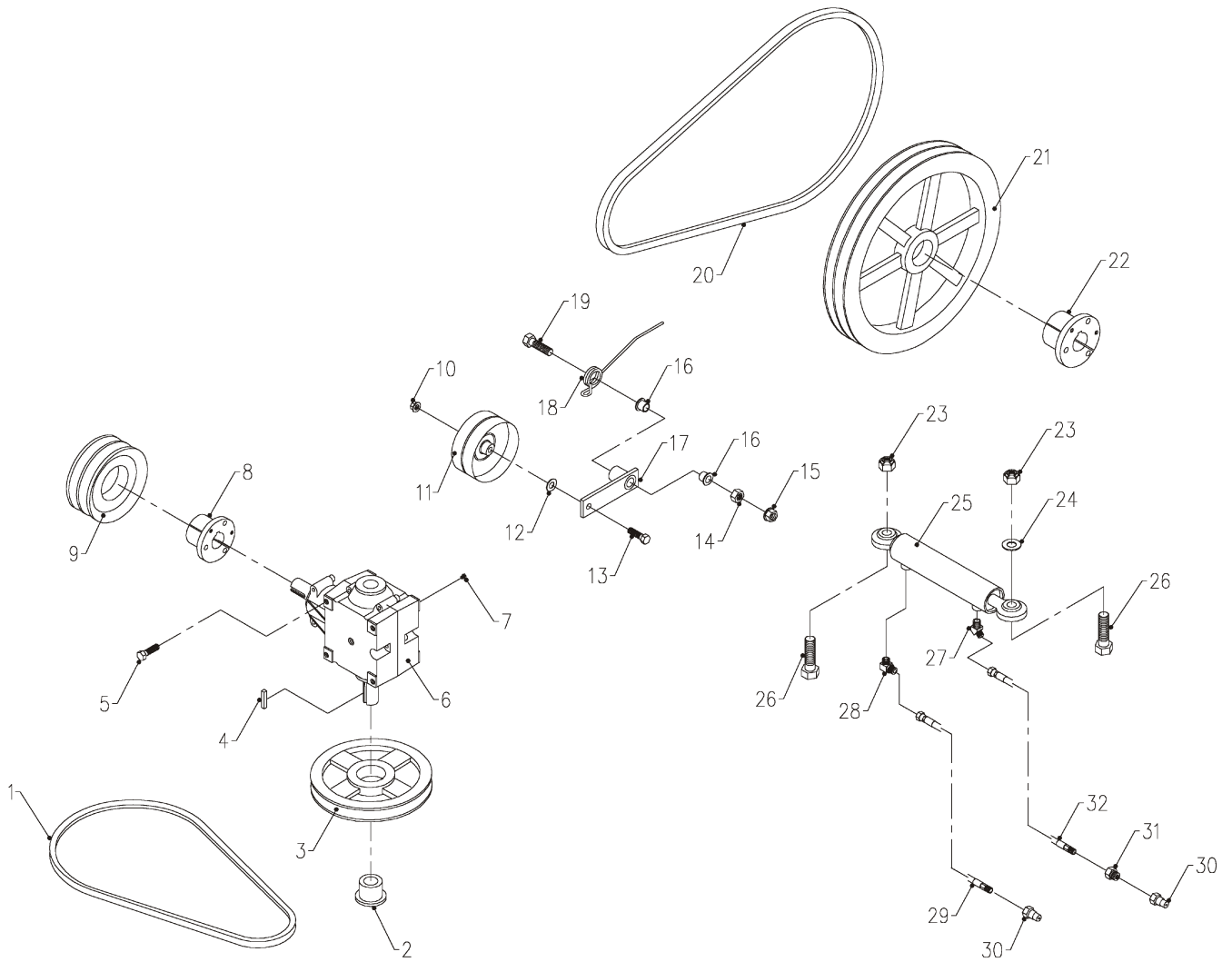
# PARTS

## CHUTE PARTS

REF.	PART NO.	DESCRIPTION	QTY.
1	62.0844.	Main Chute	1
2	85.B0027.	1/2" ID x 5/8 OD Bushing	1
3	95.08	1/2" SAE Washer	1
4	90.0816.	1/2-13 x 2 Bolt	1
5	90.0512.	5/16-18 x 1-1/2 Bolt	2
6	95.05	5/16" SAE Washer	2
7	41.0039.	9/16" OD x 5/8 Compression Spring	2
8	42.0423.	Main Chute Tilt Link	1
9	99.A05	5/16-18 Lock Nut.	6
10	95.06	3/8" SAE Washer	8
11	90.0506.	5/16-18 x 3/4 Bolt	6
12	99.SF05	5/16-18 Flange Nut	2
13	42.0427.	Extension Chute Tilt Link	1
14	00.0122.	Decal - Thrown Object Hazard.	1
15	62.0845.	Extension Chute	1
16	64.0878.	Second Extension Chute	1

# PARTS

## ILLUSTRATED DRAWING HYDRAULICS & PULLEYS



# PARTS

## HYDRAULICS & PULLEYS

REF.	PART NO.	DESCRIPTION	QTY.
1	*81.A066	*A66 Belt	1
	**81.A068	**A68 Belt	1
2	83.H16S	1" Split Bushing	1
3	83.BK50H	5" BK Pulley	1
4	85.K0408	1/4" x 1 Key	2
5	*99.SF0606	*3/8-16 x 3/4 Flange Bolt	4
	**99.SF0506	**5/16-18 x 3/4 Flange Bolt	4
6	*87.0178	*Large Gearbox	1
	**87.0188	**Small Gearbox	1
7	29.0093	1/4 NPT Breather Plug	1
8	83.SH16	1" SH Bushing	1
9	83.2B36SH	3.6" 2B Pulley	1
10	99.SF06	3/8-16 Flange Nut	1
11	83.0042	4" Double Idler Pulley	1
12	95.06	3/8" SAE Washer	1
13	90.0614	3/8-16 x 1-3/4 Bolt	1
14	99.E0058	1/2-13 Jam Nut	1
15	99.SF08	1/2-13 Flange Nut	1
16	85.B0027	1/2" ID x 5/8 OD Bushing	2
17	40.0282	Belt Tensioner Arm	1
18	41.0066	Single Torsion Spring	1
19	90.0818	1/2-13 x 2-1/4 Bolt	1
20	81.B042	B42 Belt	2
21	83.2B94SK	9.4" 2B Pulley	1
22	83.SK24	1-1/2" SK Bushing	1
23	99.A10	5/8-11 Lock Nut	2
24	95.10	5/8" SAE Washer	1
25	23.0100	1-1/2" x 5 Cylinder	1
25	23.0130	1-1/2" x 5 Cylinder	1
26	90.1016	5/8-11 x 2 Bolt	2
27	25.2503-06-04	Hyd. Fitting - 45 deg. - 3/8 x 1/4	1
27	25.6802-06-06	Hyd. Fitting - 45 deg. - 3/8 x 3/8	1
28	25.2501-06-04	Hyd. Fitting - 90 deg. - 3/8 x 1/4	1
28	25.6801-06-06	Hyd. Fitting - 90 deg. - 3/8 x 3/8	1
29	20.0166	Hyd. Hose Assembly - 1/4 x 35	1
30	23.0104	Male Quick Coupler	2
31	29.0092	.025 Orifice Fitting	1
32	20.0168	Hyd. Hose Assembly - 1/4 x 32	1

\*These parts are used only on units with the following serial numbers.  
AA1006, AA1009, AA1010, AA1013, AA1017, & AA1018

\*\*All other units use these parts.

Items 25, 27, and 28. Cylinder 23.0100, Fitting 25.2501-06-04, and Fitting 25.2503-06-04 are used through serial number AA-1062. They are replaced by Cylinder 23.0130, Fitting 25.6801-06-06, and Fitting 25.6802-06-06 beginning with serial number AA-1063 on LS420.

REVISED 02-28-03