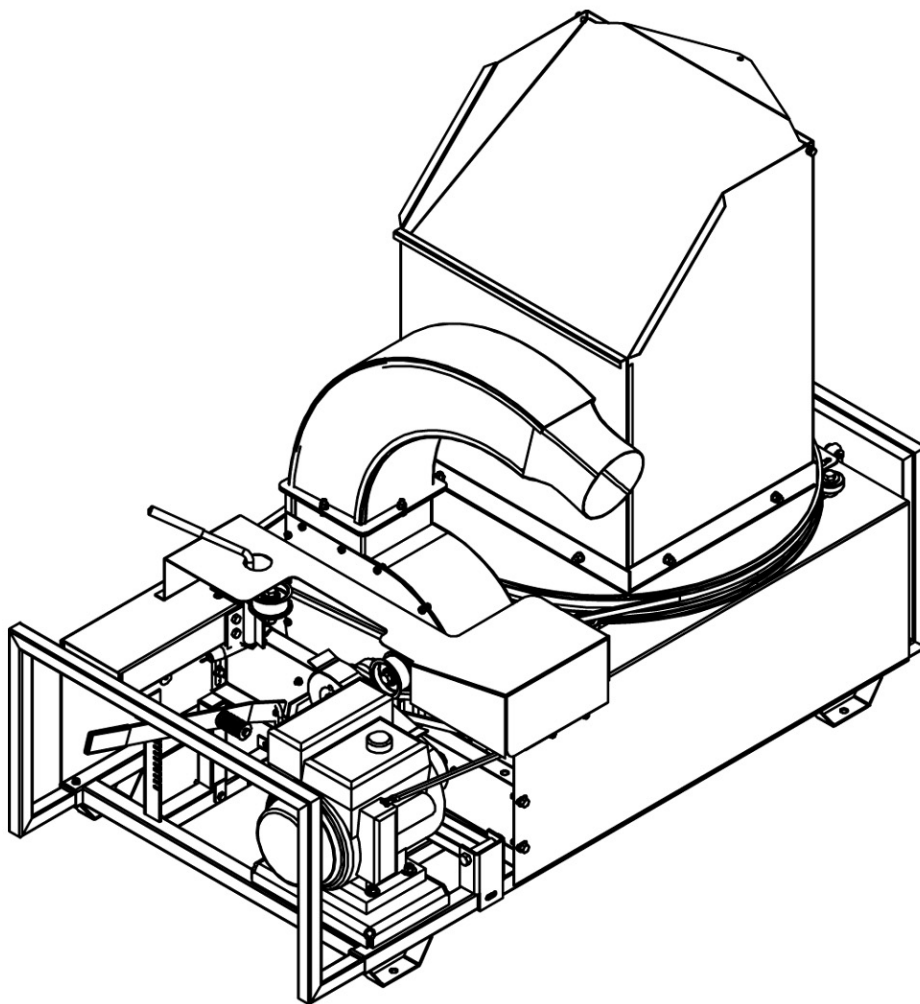


**HARPER**  
*Goossen*

# **Straw Blower**

## ***Operator's Manual***



**1300, 1600, 1800 & 5400  
Models**



***Thank you for purchasing a Harper/Goossen Straw Blower.***

As with all Harper/Goossen products, the Harper/Goossen Straw Blower has been developed through tough design and testing procedures to provide a quality machine. This manual gives assembly, operating, and service information for the 1300, 1600, 1800 and 5400 Straw Blower models.

**Please read and understand all instructional material included with the Straw Blower and its components before assembling and operating the equipment.**

A Straw Blower can present hazards to an operator who follows unsafe procedures in either the operation or maintenance of the unit. Therefore, **SAFETY WARNINGS** are presented at certain locations in the text.

**THIS SYMBOL:  SAFETY WARNING!**

**MEANING:** Failure to understand and obey this warning may result in injury to you or others.

Whenever this symbol is used, please pay very close attention to the information presented, and make sure you fully understand. If you do not, contact your Goossen dealer or Harper Industries for clarification.

** SAFETY WARNING!**

**ALL SHIELDS AND GUARDS MUST BE IN PLACE FOR PROPER AND SAFE OPERATION OF THIS EQUIPMENT. WHERE THEY ARE SHOWN REMOVED IN THIS MANUAL, IT IS FOR PURPOSES OF ILLUSTRATION AND INSTRUCTION ONLY. DO NOT OPERATE THIS EQUIPMENT UNLESS ALL SHIELDS AND GUARDS ARE IN PLACE.**

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The Goossen and Harper/Goossen names are registered trademarks of Harper Industries, Inc. All other brand and product names are trademarks or registered trademarks of their respective companies.

## **LIMITED WARRANTY**

The Harper/Goossen Verti-Cutter is warranted against defects in workmanship and materials for a period of **TWELVE MONTHS** from the date of retail purchase to the original purchaser.

Harper Industries will repair or replace, at our option, any part that our examination shows to be defective. Warranty is limited to parts, labor and ground freight delivery of replacement parts. The user will pay freight charges for parts submitted under this warranty.

No product or part may be returned for warranty consideration without prior approval from Harper Industries.

This warranty does not apply to parts subjected to misuse, abuse, alteration, improper or inadequate maintenance, or normal wear (including belts, chains and knives).

Harper Industries, its agents or representatives, make or imply no other warranties. Contact Harper Industries with any questions regarding this warranty.

## **FOR YOUR RECORDS**

DATE OF PURCHASE \_\_\_\_ / \_\_\_\_ / \_\_\_\_

DEALER'S NAME \_\_\_\_\_

DEALER'S PHONE # \_\_\_\_\_

SERIAL # \_\_\_\_\_

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SB5400	18-19      20-21      22-23□
SB1300	26-27      28-29      34-35□
SB1600	26-27      30-31      36-37□
SB1800	26-27      32-33      34-35□
COMMON	38-41

# Specifications

## Engine Powered Models: 1300, 1600, 1800

<b>Engine</b>	4-cycle Honda or Briggs & Stratton gasoline engine
<b>Horsepower Rating</b>	1300 – 13 hp 1600 – 16 hp 1800 – 18 hp
<b>Dimensions</b>	Width – 31” Height – 51” Length – 55”
<b>Weight</b>	490 lbs (shipping weight 565 lbs)
<b>Cutting Device</b>	4 blade impeller - 16.5” diameter
<b>Knives</b>	32
<b>Discharge</b>	6” x 30’ Super-flex hose or directional spout

## PTO Powered Model: 5400

<b>Drive</b>	540 RPM PTO
<b>Dimensions</b>	Width – 31” Height – 51” Length – 60”
<b>Weight</b>	525 lbs (shipping weight 600 lbs)
<b>Cutting Device</b>	4 blade impeller - 16.5” diameter
<b>Knives</b>	32
<b>Discharge</b>	6” x 30’ Super-flex hose or directional spout

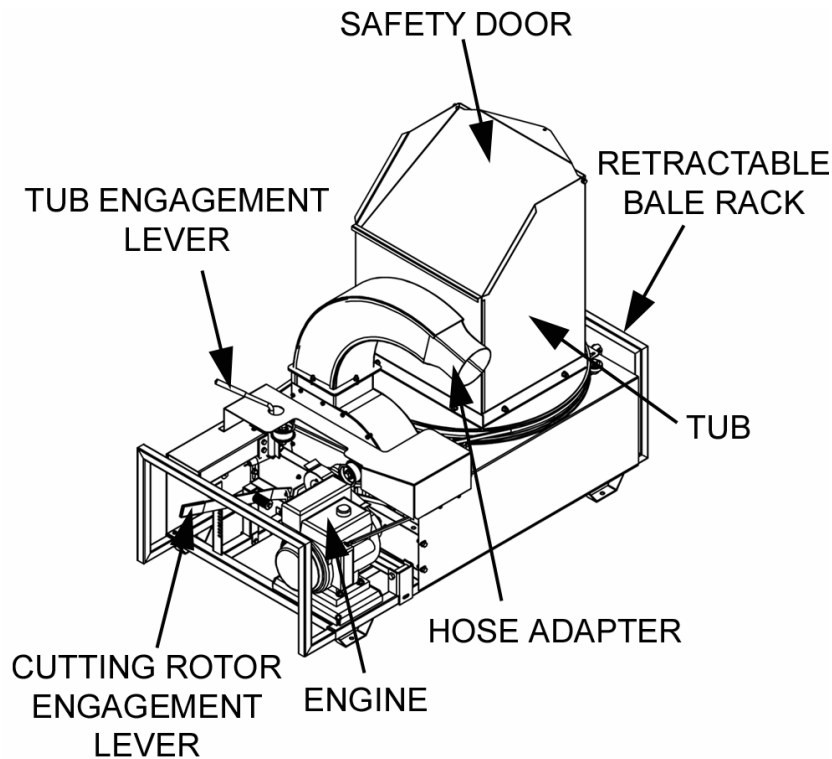
*Harper Industries, Inc. is continually striving to improve the design and performance of its products. We reserve the right to make changes in specifications and design without thereby incurring any obligation relative to previously manufactured products.*

The Harper/Goossen Straw Blower, in engine powered and PTO versions, chops and applies straw for erosion control, bedding and mulching. The depth of the cut is easily adjustable while in operation, to handle a variety of materials\* and conditions. The standard 30’ hose provides even layering and pinpoint placement. The hose is good for pliable down to 20° F. Temperatures below 20° may cause polyurethane to crack when stretched. A 360° directional spout is available for broadcast operations.

**\*NOTE:** Do not shred cardboard with a Harper/Goossen Straw Blower. The density of cardboard will cause damage to the cutting knives and the rotor.

# Control Identification

## Engine Powered Models



**Tub** – the bale is placed in the tub and when engaged the tub rotates and feeds the bale down into the cutting knives.

**Tub Engagement Lever** – engages the rotation of the tub.

**Engine** – powers the Bale Chopper.

**Safety Door** – door on tub that is spring loaded to prevent things from getting into the cutting knives.

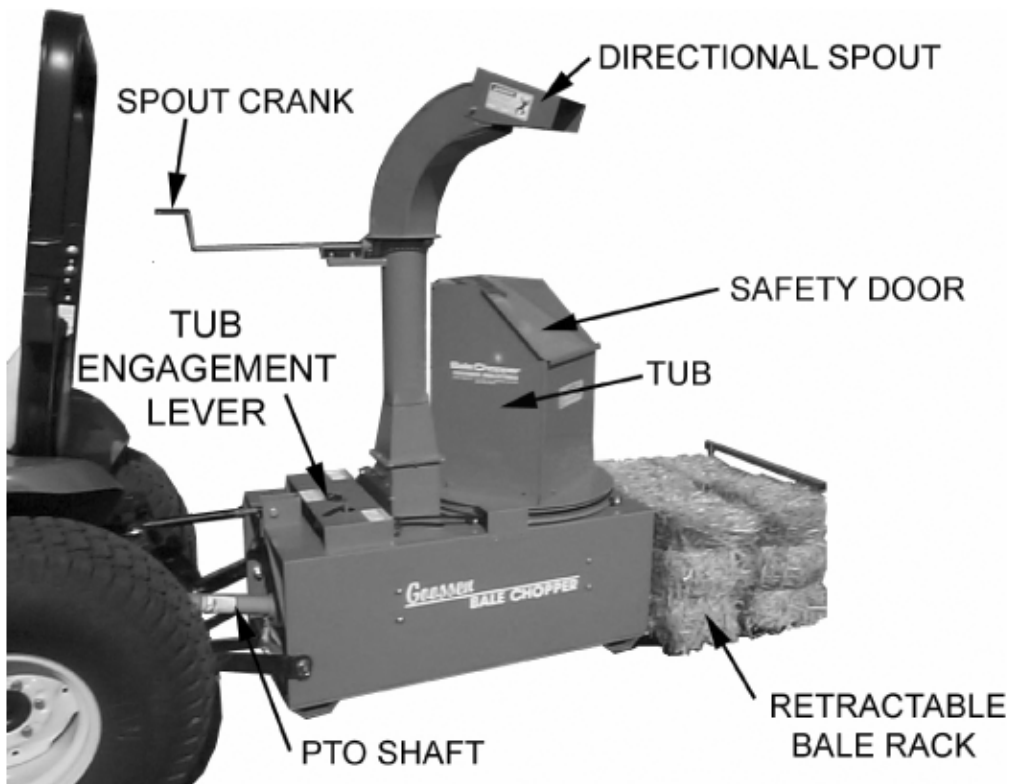
**Hose Adapter** – feeds the straw into the Super-flex hose.

**Cutting Knife Engagement Lever** – engages the cutting knives.

**Retractable Bale Rack** – pulls out to hold an extra bale.

**Engine** – powers the Bale Chopper.

## PTO Powered Model



**Tub** – the bale is placed in the tub and when engaged the tub rotates and feeds the bale down into the cutting knives.

**PTO Shaft** – Powers the bale chopper.

**Retractable Bale Rack** – pulls out to hold an extra bale.

**Directional Spout** - Directs the straw to the desired area.

**Spout Crank** – turns the directional spout to discharge straw to the desired area.

**Safety Door** – door on tub that is spring loaded to prevent things from getting into the cutting knives.



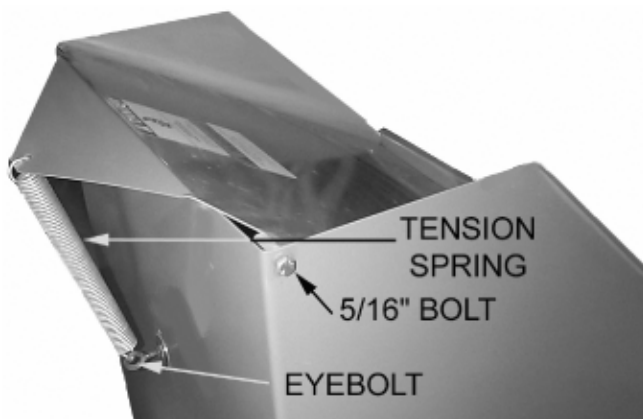
# Assembly

## TUB COVER SAFETY SHIELD

### All models

#### Using the Hardware supplied:

1. Install the eyebolt through the top hole in the rear tub wall, with a flat washer, lock washer and nut on each side of the wall.
2. Mount the tub to the tub base with the truss-head bolts, lock washers and nuts provided. Put the bolt heads inside the tub to provide a smooth inside surface.
3. Insert a 5/16" nut just past the first thread of each bolt. Put the front lip of the safety shield (lid) down *inside* the tub and screw one bolt into each coupler on the lid. Center the shield in the opening, and then lock it into position by tightening the 5/16" nuts against the edges of the shield.
4. Connect the tensioning spring from the eyebolt to the hole in the rear of the safety shield.



## SUPER-FLEX HOSE INSTALLATION

#### Using the hardware supplied:

1. Mount the hose adapter to the Straw Blower.

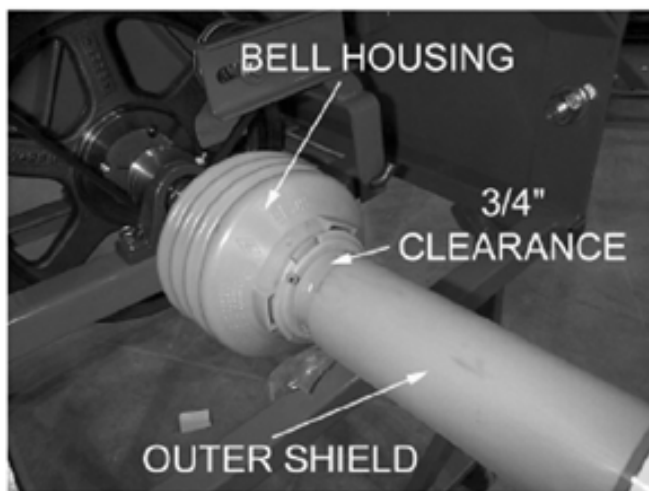


2. Attach the hose to the hose adapter with a 6" hose clamp, and secure the hose handle to the other end of the hose with two 6" hose clamps.

## PTO ASSEMBLY

### PTO Powered Model

1. Install the pins provided and connect your three point hitch to the Straw Blower.  
**IMPORTANT:** Do not connect the PTO drive shaft at this time.
2. Raise the Straw Blower to the height where the PTO drive shaft would be level, if installed.
3. Connect the drive shaft to the Straw Blower.
4. Hold the drive shaft level, with the 540 yoke aligned beside the PTO shaft on the tractor.
5. Allow for  $\frac{3}{4}$ " clearance between the outer shield and the bell housing at the Straw Blower end of the drive shaft.
6. If the drive shaft is too long, separate the halves and cut the full amount of excess length from both the male half and the female half.



**Note:** If you cut only one end of the drive shaft, the other end will bottom out during operation. Cut the inner and outer shields as necessary to compensate for the length adjustment.

7. Connect the 540 yoke to the PTO shaft on the tractor.
8. Remove the quick pin from its shipping location at the upper rear of the unit, and insert it into the hole in the lower rear of the unit to secure the bale carrier.

## BATTERY

### Engine Powered Models

- The battery is shipped without electrolyte. Therefore, the battery must be filled with sulfuric acid electrolyte before the Straw Blower can be used.



### **SAFETY WARNING!**

- Battery electrolyte can cause severe burns if handled improperly.
- Observe all poison/ danger warnings on electrolyte cartons and on the battery.
- Wear splash-proof goggles and protective clothing when adding electrolyte to batteries.
- Avoid contact of electrolyte with the skin, eyes, or clothing.
- KEEP BATTERIES AND ELECTROLYTE OUT OF REACH OF CHILDREN.
- If electrolyte is spilled or splashed on the body, IMMEDIATELY FLUSH WITH WATER.
- If electrolyte comes into contact with the eyes, FLUSH WITH WATER FOR 15 MINUTES AND GET PROMPT MEDICAL ATTENTION.
- If electrolyte is taken internally, DRINK LARGE QUANTITIES OF WATER OR MILK, FOLLOWED WITH MILK OF MAGNESIA, BEATEN EGGS, OR VEGETABLE OIL.

### To fill the battery with electrolyte:

1. Place the battery on a level surface and remove the vent caps. If the battery has thin plastic shields in the cell openings, remove and discard them.
2. Fill the battery with battery grade sulfuric acids to just above the separators. DO NOT OVERFILL.
3. Reinstall the vent caps, and charge the battery as instructed below. AFTER charging, check the acid level, and fill to the bottom of the vent well openings. DO NOT OVERFILL.

### Charging the battery:

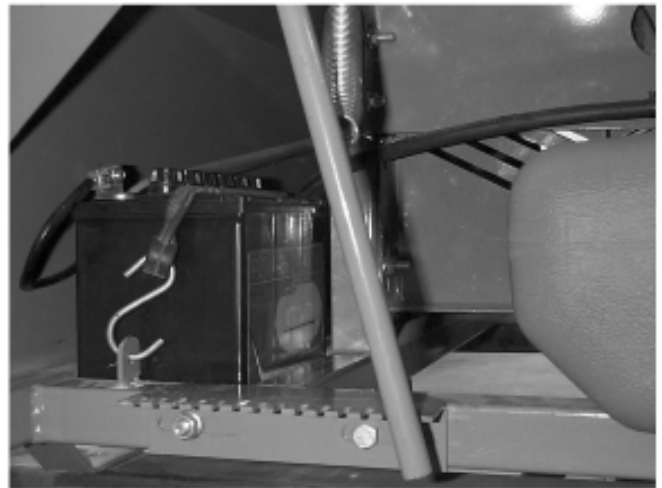


### SAFETY WARNING!

- The battery can produce explosive gasses.
  - Ventilate when charging or using in an en-closed space.
  - DO NOT produce sparks from cable clamps, tools, or other sources; and
  - DO NOT allow flames or smoking in the vicinity of the battery.
  - Shield eyes when working near the battery.
  - Always keep the vent caps tight and level.
1. Make sure the vent caps included with the battery are installed.
  2. Connect the battery to the charger according to the manufacture's instructions and charge at 10 amperes for 50 minutes, or 2-9 amperes for 2 hours (depending on the capabilities of the charger).

### Installing the battery:

1. Make sure the cable terminals and any hard hold-down wires are clean. If the battery is a replacement and the connectors and hold-down have been used before, clean them with a wire brush.
2. Place the battery in the tray, located at the right rear of the machine, and secure the battery in position with the hold-down provided.
3. Connect the cables to the proper terminals, connecting the UNGROUNDED cable first. Do not over tighten. Apply a commercial battery anti-corrosion material or petroleum jelly to the terminals, to minimize corrosion.



# Operation



## SAFETY WARNING!

- **Wear approved eye and ear protection while operating the machine.**
- **Keep all guards in place during operation. Never operate machine with the tub removed.**
- **Before operating the machine, check to ensure that all the belt guides and snubbers are in place, to prevent belts from slipping off the pulleys and systems from being accidentally engaged.**
- **Check the bale tub for children, pets and foreign objects before operating.**
- **Never push material onto the cutters with your hands or feet.**
- **Periodically clean chopped material away from engines to lessen the possibility of fire.**
- **Always keep the fire extinguisher near the Straw Blower during operation.**

**NOTE:** The Straw Blower is gravity-fed and is natural for the rate of chopping to slow as the bale becomes lighter, until another bale is added.

**NOTE:** If bales are bound by wire instead of string or plastic, remove the wire before putting the bales in the tub.

**NOTE:** On initial operation, the belts will become stretched and need readjustment after the first 10-15 bales. When adjusting belt tension, use a straightedge across the faces of the pulleys to make sure they are properly aligned and the belts run true.

## Engine Powered Models

### To begin operation:

1. Make sure tub and cutting rotor are NOT engaged.
2. Fill fuel tank with gas.
3. Make sure the vent on the fuel tank is open at least a quarter of a turn. (If it is closed the engine will vapor lock and will not run). 1300 model has no manual vent.
4. Start the engine. Refer to engine manual for more information.
5. Engage the cutting rotor by pushing the rotor engagement lever down.
6. Place a bale into the tub.
7. Engage the tub rotation by moving the tub engagement lever towards the engine.
8. Add another bale when there is about 1/3 bale left in the tub.

### To stop operation:

1. Stop the tub rotation.
2. Disengage the rotor mechanism.

## PTO Powered Model

### To begin operation:

1. Make sure the tub engagement lever is disengaged.
2. Engage the PTO, to start blade rotation.
3. Set the first bale into the tub.
4. Engage the rotor by turning the engagement lever to the front of the machine.
5. Add another bale when there is about 1/3 bale left in the tub.

### To stop operation:

1. Disengage the tub.
2. Disengage the PTO, to stop roto

# Adjustments

## BELT TENSION ADJUSTMENTS

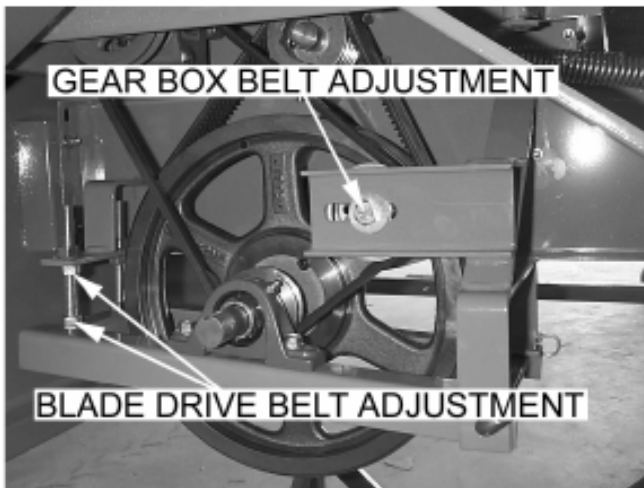
**NOTE:** Use only industrial V-belts. Do not use automotive belts.

**NOTE:** Use a straightedge to check alignment across the faces of pulleys after adjusting belt tension, to ensure that the belts will run true.

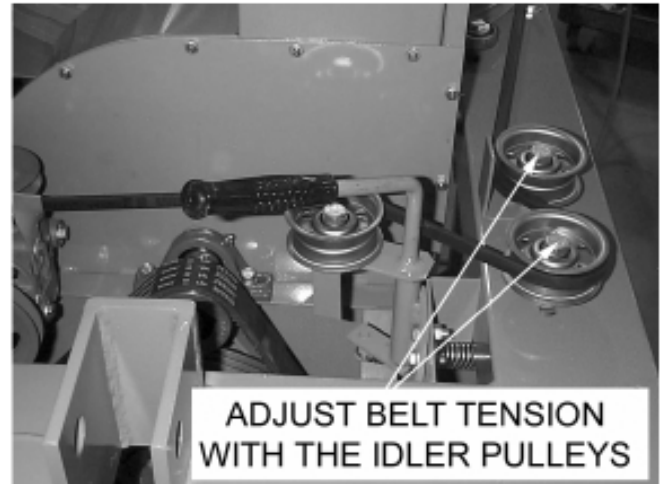
**IMPORTANT:** Do not over tighten belts. Excessive tension can cause premature bearing, gearbox and clutch failure.

### PTO Powered Model

- The blade shaft drive belt can be adjusted by means of two ½" threaded rods.
- The gear box belt can be adjusted by moving the idler pulley in the slotted hole.

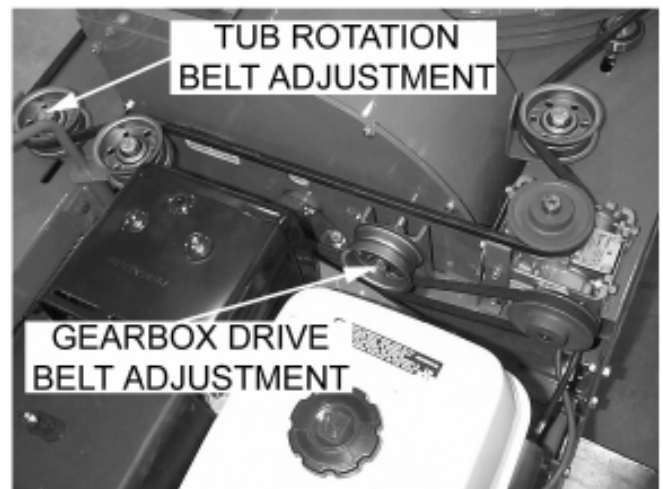


- The belt that rotates the tub can be adjusted by moving the two idler pulleys in the slotted holes.



### Engine Powered Models

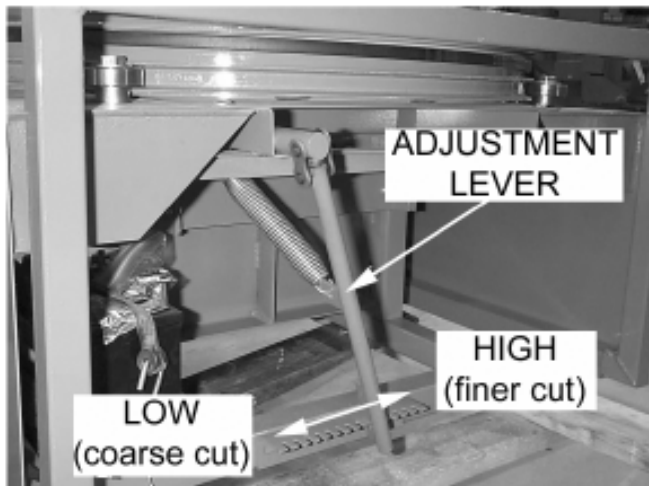
- The tub rotation belt and the gearbox drive belt can both be adjusted by moving their respective idler pulleys in the slotted holes.



## CUTTING DEPTH ADJUSTMENT

### All models

- The cutting depth is adjusted by moving a lever and putting it into the slot that gives the desired cutting depth. The adjustment is located at the rear of the machine.



## CUTTING KNIFE REPLACEMENT

### All models



### SAFETY WARNING!

- Wear protective gloves whenever handling blades or working near them.
- Knives and their retaining hardware rotate at high speeds. It is essential that they be mounted securely to prevent accidents.

**NOTE:** If the serrations are worn down but the tip of the knife is still intact, the knife may be turned around and remounted.

### To maintain balance:

- Mount replacement knives only in the places from which the worn knives were removed.
- Mount additional knives only as opposing pairs on each plate, and in the patterns shown below.
- Do not remove nuts and bolts installed as weights, unless mounting knives in those holes.

**NOTE:** Mount the knives with bevel facing impeller and alternate between the front and back side of the plate.



### To replace knives:

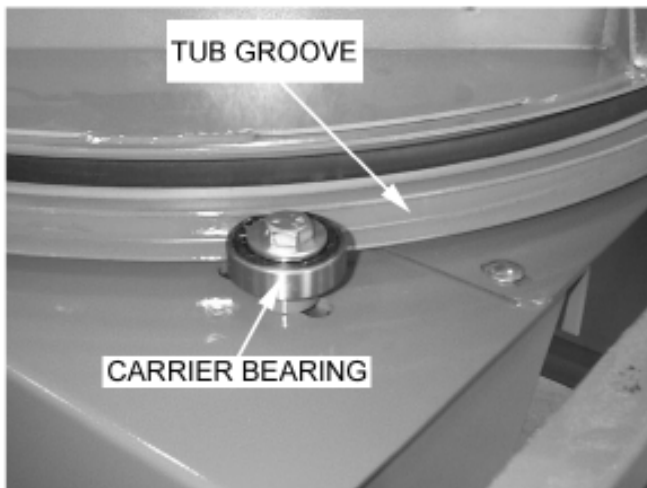
1. Remove the belt from around the tub.
2. Loosen the bolts mounting the rear tub carrier bearings.
3. Slide the loosened bearings toward the rear and remove the tub from the Straw Blower.
4. Unbolt and remove the grate guide.
5. With the grate adjustment lever, rotate the grate upwards and clear of the knives.
6. Remove and replace the knives as necessary, using only Grade 5, 1/4"-20 x 1/2" bolts and lock nuts, treated with Loctite® (or equivalent). Tighten lock nuts to 18 in. lbs.
7. Return the grate to its original position.
8. Reinstall the tub.

# Service

## BREAK-IN SERVICE

After the first 10-15 bales:

1. Check belts, tighten if necessary.
2. Tighten setscrews on bearings.
3. Check the tub carrier bearings and make necessary adjustments.



- The carrier bearing should run in the tub bearing groove. This keeps the tub spinning even.

## BEARINGS

- The bearings are sealed and require no lubrication.

## PTO Powered Model

### Gearbox

At 100 hours & every 6 months:

1. Drain the gearbox while warm.
2. Thoroughly flush the gearbox housing with a light, flushing oil.
3. Refill the gearbox with 6 oz of 80-90 weight gear oil.

## Engine Powered Models

### Gearbox

- No maintenance is required for the gearbox on the engine powered models unless the unit leaks. Use Mobil SHC 634 worm gear lubricant or equivalent.

### Engine

- Follow the manufacturer's maintenance recommendations located in the engine manual.

# Troubleshooting

## ENGINE

<b>Problem:</b>	<b>What to check:</b>
Engine shuts off during operation	<ul style="list-style-type: none"> <li>• Engine may be low on fuel</li> <li>• Engine may be low on oil (The Honda Engine is equipped with an “Oil Alert” automatic shut off)</li> <li>• Air breather may be clogged</li> </ul>

## BELTS

<b>Problem:</b>	<b>What to check:</b>
Belts slip	<ul style="list-style-type: none"> <li>• Tension Adjustment</li> <li>• Load may be excessive</li> <li>• Knives may be too dull</li> <li>• Grate setting may be too low (cutting too deeply)</li> <li>• Foreign material may be lodged in the chopper (on knives or blower paddles)</li> <li>• Bearings may have seized</li> </ul>
Belts wear rapidly, jump, catch or twist	<ul style="list-style-type: none"> <li>• Pulleys may not be properly aligned. Check with a straightedge across the faces of pulleys</li> </ul>

## CUTTING AND DISCHARGE

<b>Problem:</b>	<b>What to check:</b>
Hose plugs	<ul style="list-style-type: none"> <li>• Material being chopped may have too much moisture in it.</li> <li>• RPM may not be high enough. (540 RPM max is recommended for PTO model. Adjust throttle to increase RPM to required levels. DO NOT adjust engine governor on engine models)</li> <li>• Foreign material may be lodged in the hose</li> <li>• Grate setting may be set too low</li> </ul>
Slow cutting time	<ul style="list-style-type: none"> <li>• Grate setting may be too high</li> <li>• Material being cut may be too wet</li> <li>• Knives may be too dull</li> <li>• RPM may be too low</li> </ul>



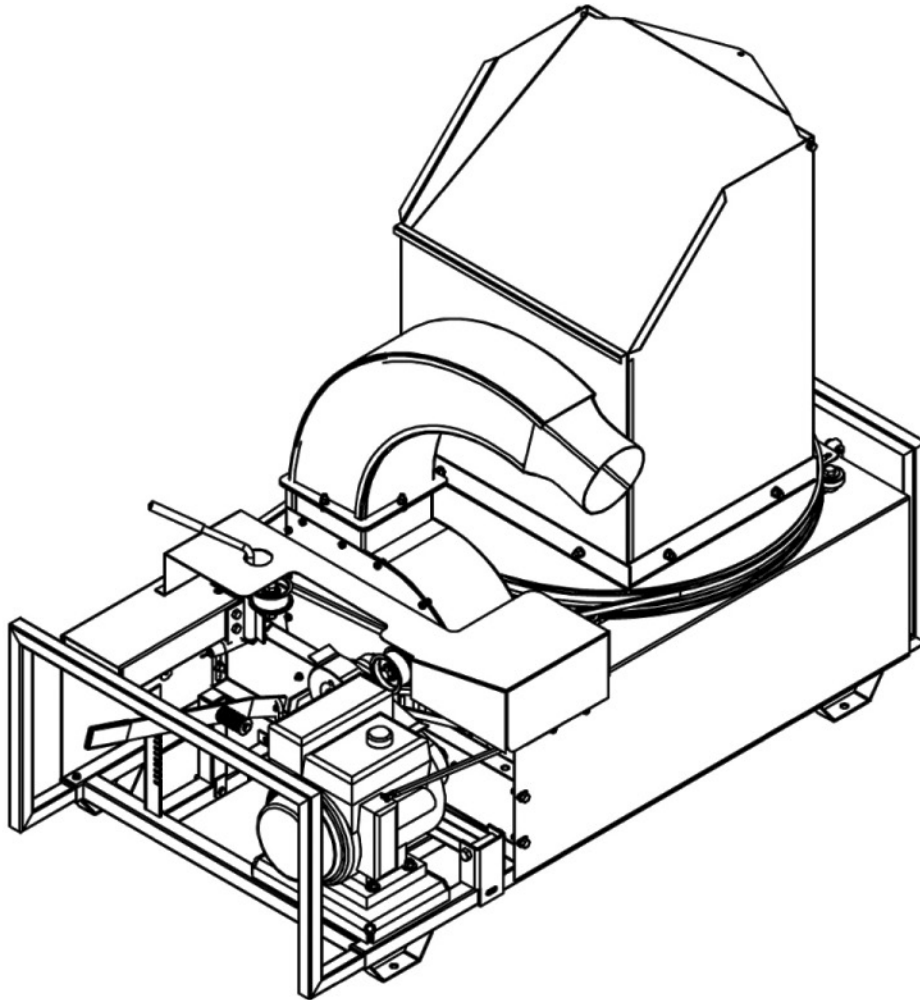
## GEARBOX

<b>Problem:</b>	<b>What to check:</b>
Oil leaks	<ul style="list-style-type: none"><li>● Housing bolts may be loose</li><li>● Oil seals may need replaced</li></ul>
Gearbox overheats	<ul style="list-style-type: none"><li>● Oil level may be too low</li><li>● Dirt or grease may have accumulated around the gearbox</li></ul>
Gear box vibrates, is very noisy	<ul style="list-style-type: none"><li>● Oil level may be too low</li><li>● Components may be worn or damaged</li><li>● Load may be excessive</li></ul>



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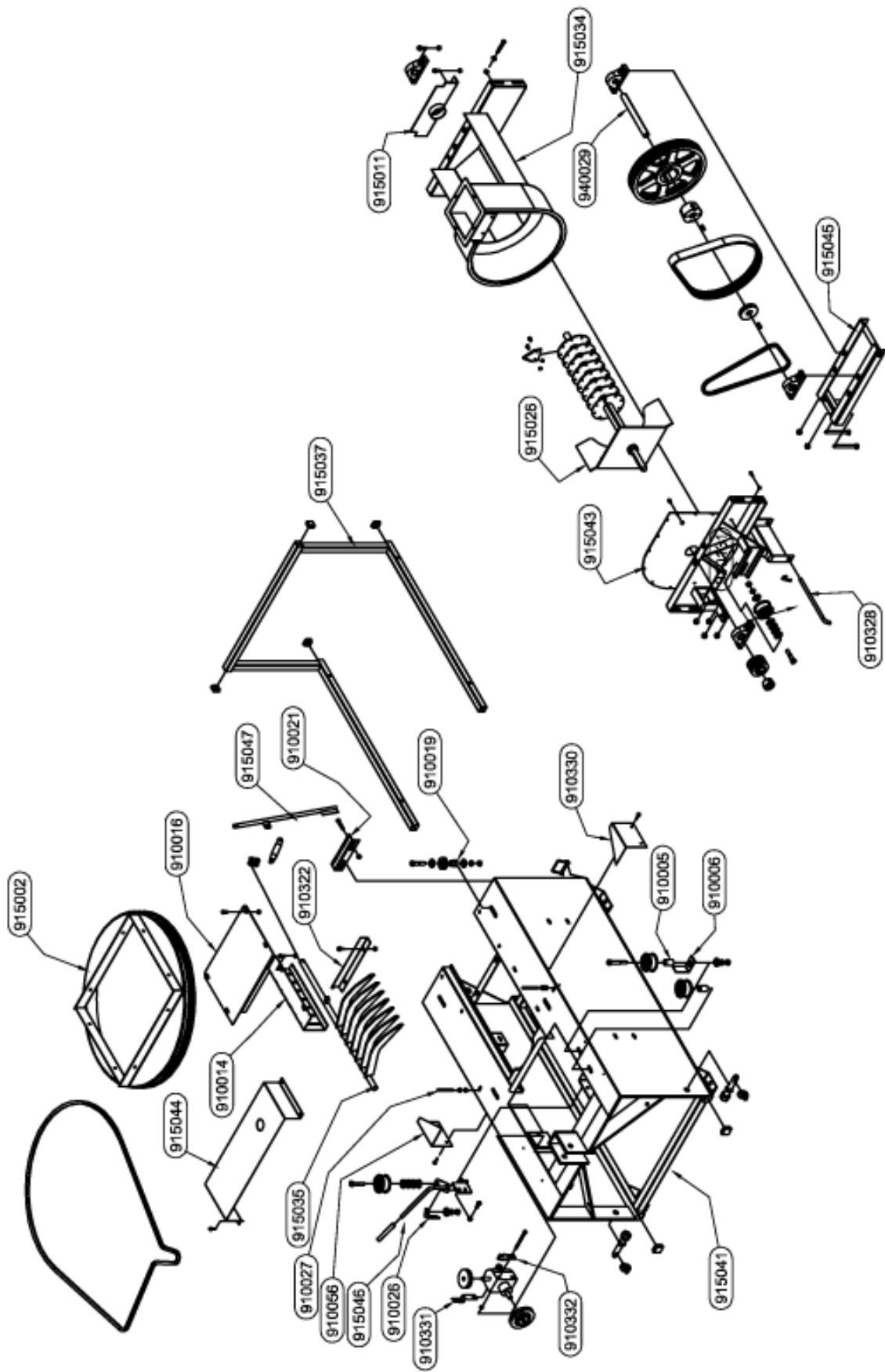
# **Straw Blower**



## ***PARTS***

MODEL	Assembly	Service	Fasteners
SB5400	18-19	20-21	22-23
SB1300	26-27	28-29	34-35
SB1600	26-27	30-31	36-37
SB1800	26-27	32-33	34-35
COMMON	38-41		

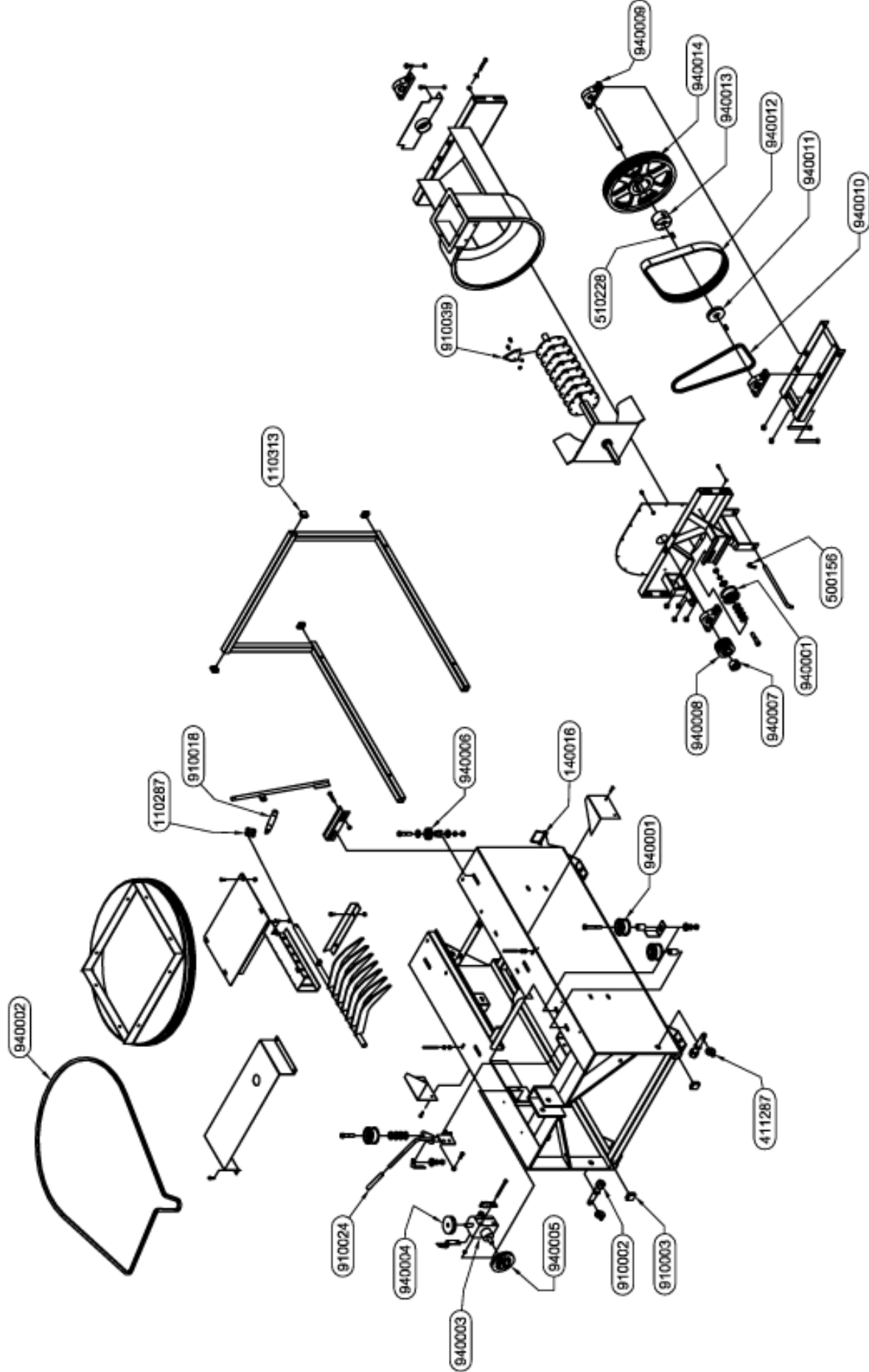
STRAW BLOWER 5400  
ASSEMBLY COMPONENTS



STRAW BLOWER 5400  
ASSEMBLY COMPONENTS

PART #	QTY	NAME
910005	2	IDLER PULLEY SPACER
910006	1	BELT GUIDE
910014	1	GUIDE, 7 FINGER GRATE
910016	1	COVER, REAR ROTOR
910019	4	SPACER, TUB BASE BEARING
910021	1	BRACKET, GRATE ADJUSTMENT
910026	1	SHIFT ASSY STOP
910027	2	GUIDE, BELT
910131	1	HANDLE, HOSE
910322	1	GRATE ALIGNMENT BRACKET
910328	1	TIGHTENER HINGE PIN
910330	1	SHIELD, TUB BELT, PTO
910331	1	BELT GUIDE
910332	1	BELT GUIDE
915002	1	TUB BASE ASSY
915011	1	REAR BEARING GAURD
915026	1	ROTOR AND FAN ASSY
915034	1	BLOWER TROUGH ASSY, PTO
915035	1	ADJUSTABLE GRATE, PTO
915037	1	BALE CARRIER
915041	1	MAIN FRAME ASSY, PTO
915043	1	BLOWER COVER WELDMENT
915044	1	FRONT BELT SHIELD
915045	1	TIGHTENER FRAME WELDMENT
915046	1	TUB SHIFT ASSY, PTO
915047	1	GRATE LEVER ASSY, PTO
940029	1	DRIVE SHAFT
910056	1	SHIELD, TUB BELT

STRAW BLOWER 5400  
SERVICE PARTS



STRAW BLOWER 5400  
SERVICE PARTS

PART #	QTY	NAME
110287	1	CONNECTING LINK, #80
110313	4	PLUG, 1-1/4 SQ TUBE
140016	1	LOCK PIN, WIRE 1/4 X 2-1/4
411287	2	PIN, LYNCH 7/16-14QP
500156	1	PIN, HAIRPIN COTTER
510228	2	KEY, .25 X .25 X 1.0
910002	2	3-POINT PIN W/ HARDWARE
910003	2	CAP PLUG
910018	1	SPRING
910024	1	SHIFT ROD COVER
910039	32	CUTTING KNIFE
940001	4	NARROW IDLER PULLEY
940002	1	TUB DRIVE BELT
940003	1	GEAR BOX
940004	1	GEAR BOX TOP SHEAVE
940005	1	GEAR BOX SIDE SHEAVE, PTO
940006	4	TUB BASE BEARING
940007	1	TAPER LOCK BUSHING
940008	1	ROTOR SHEAVE
940009	4	PILLOW BLOCK BEARING
940010	1	GEAR BOX DRIVE BELT
940011	1	SHEAVE 3.0 X 1
940012	1	BANDED DRIVE BELT
940013	1	TAPER LOCK BUSHING
940014	1	DRIVE SHEAVE

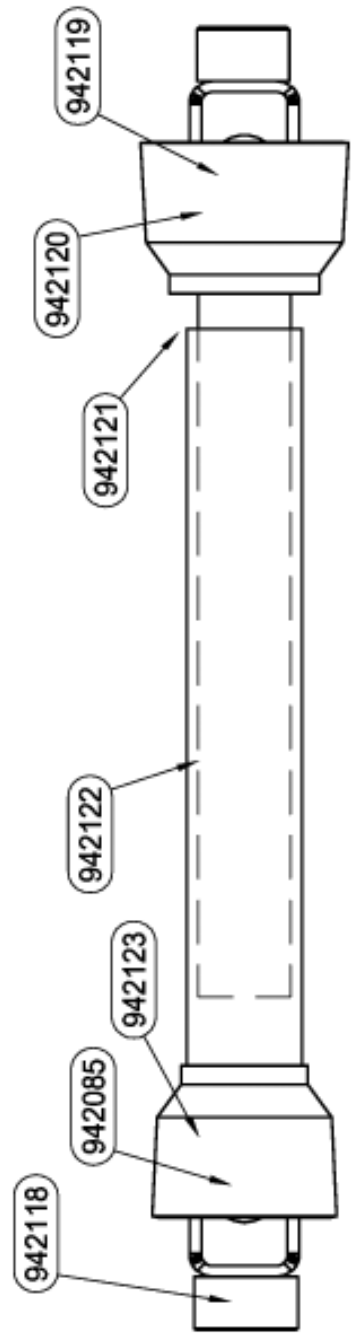




PART #	QTY	NAME
110002	2	BOLT, 1/2-13 X 3.5
110020	6	BOLT, 5/16-18 X .75 CARRIAGE
110155	8	WASHER, 3/8 FLAT, "SAE"
110161	8	BOLT, 3/8-16 X 1.25 WIZ FLANGE
110174	78	NUT, 1/4-20, LOCK (2-WAY)
110296	2	BOLT, 1/2-13 X 5, FULL THREAD
110658	20	WASHER, 1/2 FLAT
110400	2	BOLT, 3/8-16 X 2
110403	6	BOLT, 1/2-13 X 2.5
110603	3	NUT, 5/16-18 LOCK (NYLON)
110420	2	BOLT, 3/8-16 X 1
110606	14	NUT, 5/16-18 WIZ FLANGE
110666	8	WASHER, 1/2 LOCK
110610	14	NUT, 1/2-13
110436	8	BOLT, 3/8-16 X 2.5
110441	3	BOLT, 5/16-18 X 4
110444	2	BOLT, 5/16-18 X .75 WIZ FLANGE
110621	2	NUT, 3/8-16 LOCK
110459	2	BOLT, 5/16-18 X 1 WIZ FLANGE
110515	74	BOLT, 1/4-20 X .5
710586	8	SCREW, 1/4 X 1 TEK SELF TAP
110561	4	BOLT, 1/4-20 X .75
110645	18	NUT, 3/8-16 WIZ FLANGE
110670	4	WASHER, 7/16 FLAT STANDARD

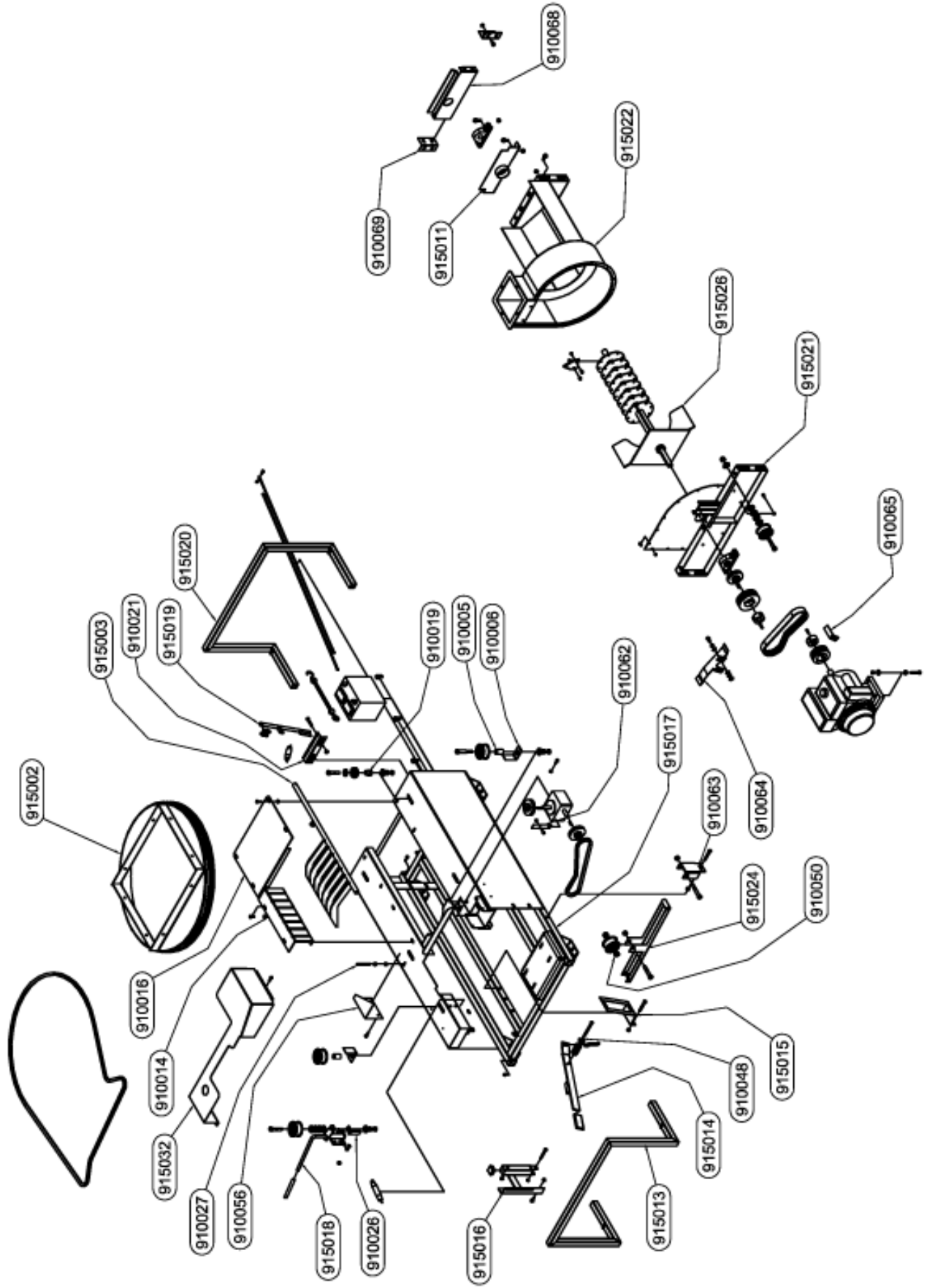
PART #	QTY	NAME
400036	1	DECAL, SAFETY, PTO SLICER (NOT SHOWN)
400037	1	DECAL, "DANGER", PTO (NOT SHOWN)
942085	2	BEARING KIT, PTO 12N
942118	1	YOKE, SNAP HITCH 12N
942123	1	YOKE, TUBE WELD 12N
942120	1	YOKE, SHAFT WELD 12N
942121	1	GUARD, OUTER PLASTIC 12N
942122	1	GUARD, INNER PLASTIC 12N
942119	2	CROSS KIT

**940015 - PTO SHAFT (complete)**





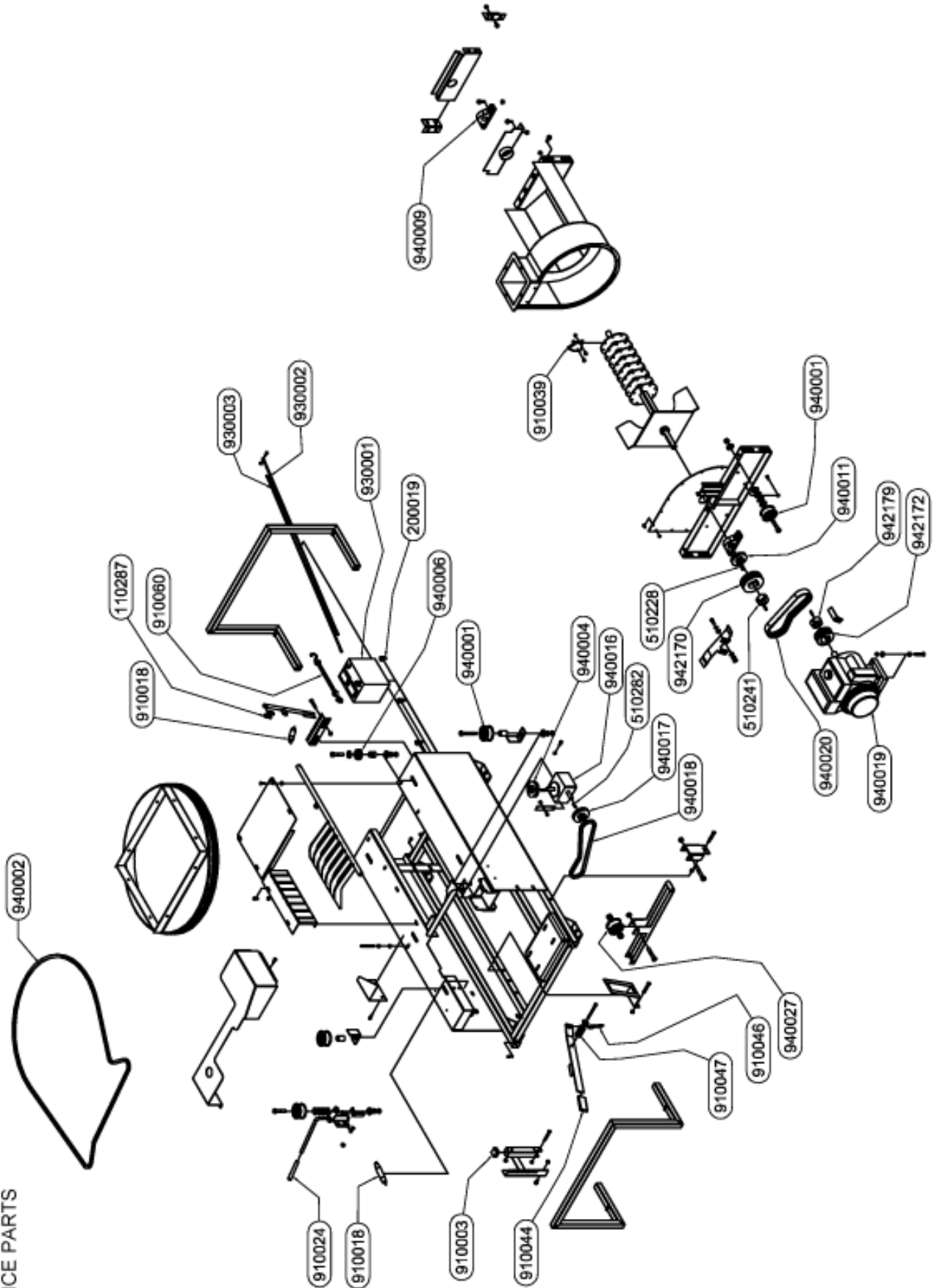
**STRAW BLOWER 1300, 1600, 1800  
ASSEMBLY COMPONENTS**



STRAW BLOWER 1300, 1600, 1800  
ASSEMBLY COMPONENTS

PART #	QTY	NAME
910005	2	IDLER PULLEY SPACER
910006	2	BELT GUIDE
910014	1	GUIDE, 7 FINGER GRATE
910016	1	COVER, REAR ROTOR
910019	4	SPACER, TUB BASE BEARING
910021	1	BRACKET, GRATE ADJUSTMENT
910026	1	SHIFT ASSY STOP
910027	1	GUIDE, BELT
910048	1	SPRING BUSHING
910050	2	ENGAGING CHANNEL SPACER
910056	1	SHIELD, TUB BELT
910062	1	GUIDE, BELT
910063	1	ENGAGING CHANNEL SWIVEL
910064	1	GUIDE, UPPER DRIVE BELT
910065	1	GUIDE, LOWER DRIVE BELT
910068	1	PLATE, REAR FRAME
910069	2	BRACKET, REAR FRAME PLATE
915002	1	TUB BASE ASSY
915003	1	ADJUSTABLE GRATE
915011	1	REAR BEARING GAURD
915013	1	FRONT LIFT HANDLE
915014	1	ENGAGING HANDLE ASSY
915015	1	ENGAGING CHANNEL GUIDE
915016	1	ENGAGING HANDLE STOP ASSY
915017	1	MAIN FRAME ASSY
915018	1	SHIFT ASSY TUB
915019	1	GRATE LEVER
915020	1	REAR LIFT HANDLE
915021	1	BLOWER TROUGH FRONT
915022	1	BLOWER TROUGH ASSY
915024	1	WELDMENT ENGAGING CHANNEL
915026	1	ROTOR AND FAN ASSY
915032	1	SHIELD ASSY FRONT BELT

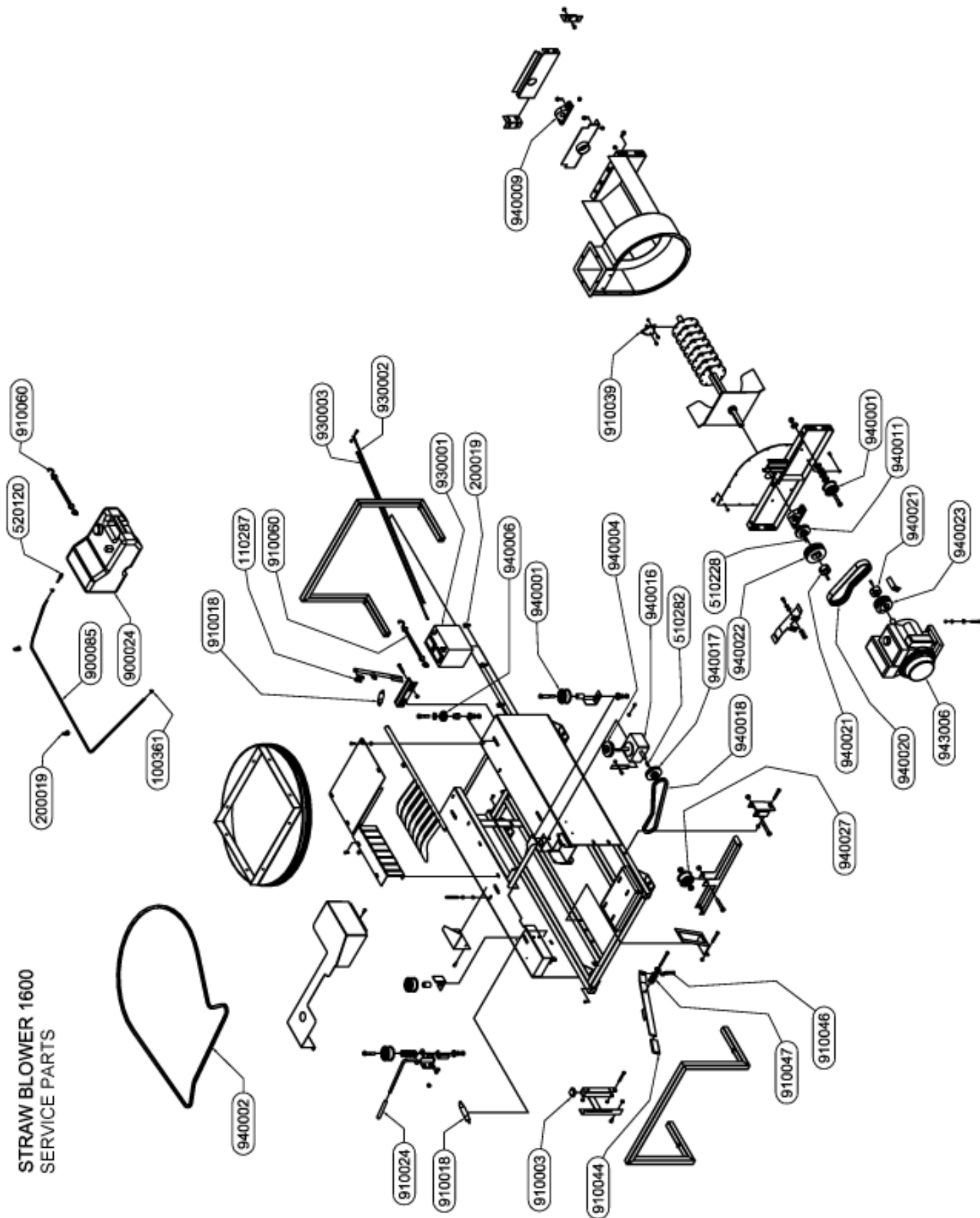
STRAW BLOWER 1300  
SERVICE PARTS



STRAW BLOWER 1300  
SERVICE PARTS

PART #	QTY	NAME
110287	1	CONNECTING LINK, #80
200019	3	CLAMP, ADEL 5/8 ID
510228	3	KEY, .25 X .25 X 1.0
510241	1	BUSHING, QD 1" SDS
510282	2	3/16 X 1 KEY
910003	1	CAP PLUG
910018	2	SPRING
910024	1	SHIFT ROD COVER
910039	32	CUTTING KNIFE
910044	1	COVER, ENGAGING HANDLE
910046	1	ENGAGING CHANNEL CLIP
910047	1	SPRING
910060	1	HOLD DOWN STRAP
930001	1	BATTERY, STRAWBLOWER GAS
930002	1	BATTERY CABLE, POSITIVE
930003	1	BATTERY CABLE, NEGATIVE
940001	4	NARROW IDLER PULLEY
940002	1	TUB DRIVE BELT
940004	1	GEAR BOX TOP SHEAVE
940006	4	TUB BASE BEARING
940009	2	PILLOW BLOCK BEARING
940011	1	SHEAVE 3.0 X 1
940016	1	GEAR BOX
940017	1	GEAR BOX SIDE SHEAVE
940018	1	GEAR BOX BELT
940019	1	ELECTRIC START ENGINE, 13 HP
940020	1	BANDED DRIVE BELT
940027	1	WIDE IDLER PULLEY
942170	1	SHEAVE, 3/3V4.50 SDS-QD
942172	1	SHEAVE, 3/3V6.65 SH-QD
942179	1	BUSHING, QD 1" SH

STRAW BLOWER 1600  
SERVICE PARTS

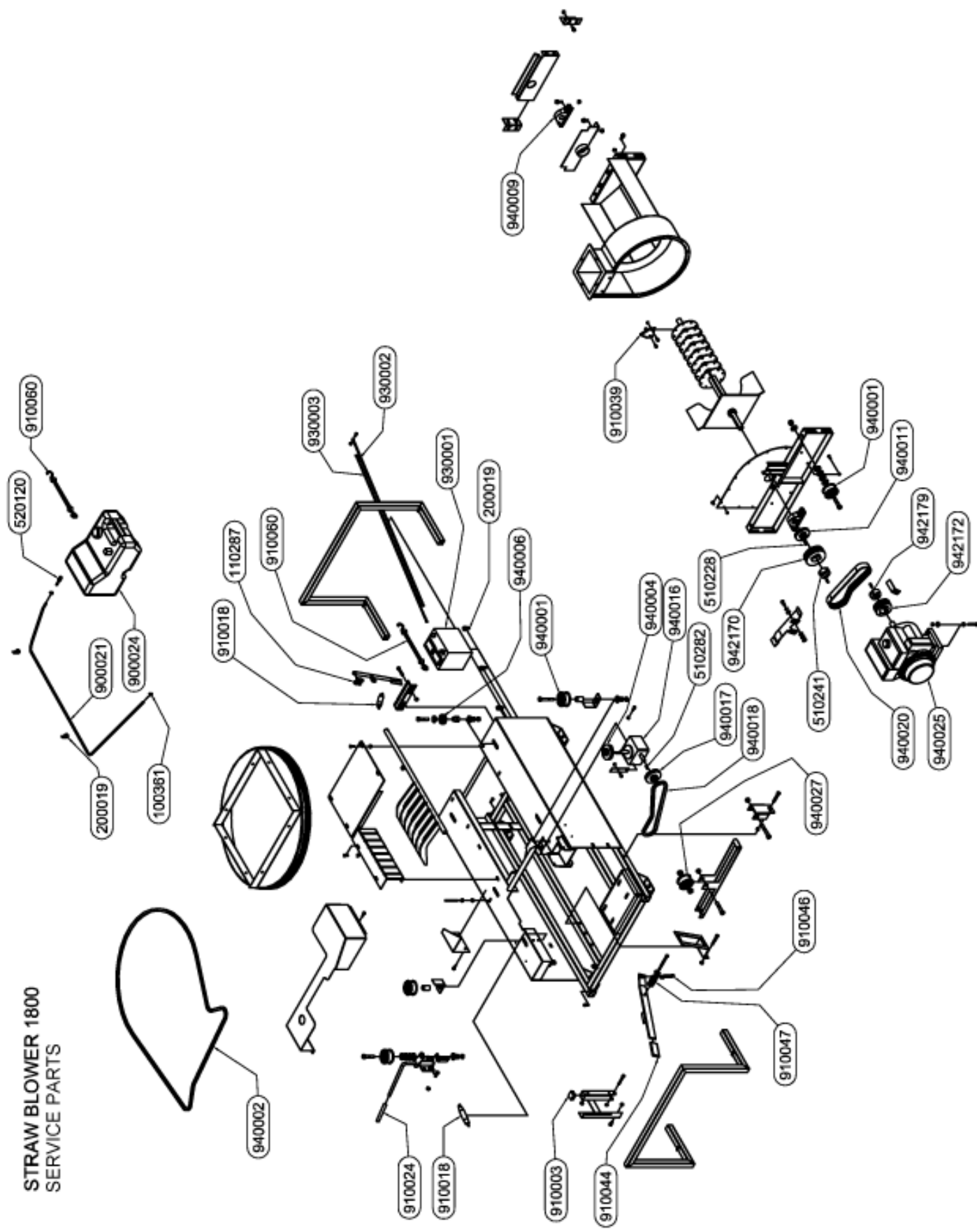




STRAW BLOWER 1600  
SERVICE PARTS

PART #	QTY	NAME
100361	2	CLAMP, HOSE 1/4"
110287	1	CONNECTING LINK, #80
200019	5	CLAMP, ADEL 5/8 ID
510228	3	KEY, .25 X .25 X 1.0
510282	2	3/16 X 1 KEY
520120	1	ADAPTER, 4BI-4MP
900024	1	FUEL TANK
910003	1	CAP PLUG
910018	2	SPRING
910024	1	SHIFT ROD COVER
910039	32	CUTTING KNIFE
910044	1	COVER, ENGAGING HANDLE
910046	1	ENGAGING CHANNEL CLIP
910047	1	SPRING
910060	2	HOLD DOWN STRAP
930001	1	BATTERY, STRAWBLOWER GAS
930002	1	BATTERY CABLE, POSITIVE
930003	1	BATTERY CABLE, NEGATIVE
940001	4	NARROW IDLER PULLEY
940002	1	TUB DRIVE BELT
940004	1	GEAR BOX TOP SHEAVE
940006	4	TUB BASE BEARING
940009	2	PILLOW BLOCK BEARING
940011	1	SHEAVE 3.0 X 1
940016	1	GEAR BOX
940017	1	GEAR BOX SIDE SHEAVE
940018	1	GEAR BOX BELT
940020	1	BANDED DRIVE BELT
940021	2	TAPER LOCK BUSHING
940022	1	DRIVE SHEAVE
940023	1	DRIVE SHEAVE
940027	1	WIDE IDLER PULLEY
943006	1	ELECTRIC START ENGINE, 16 HP
900085	1	HOSE, FUEL LINE, SB1600

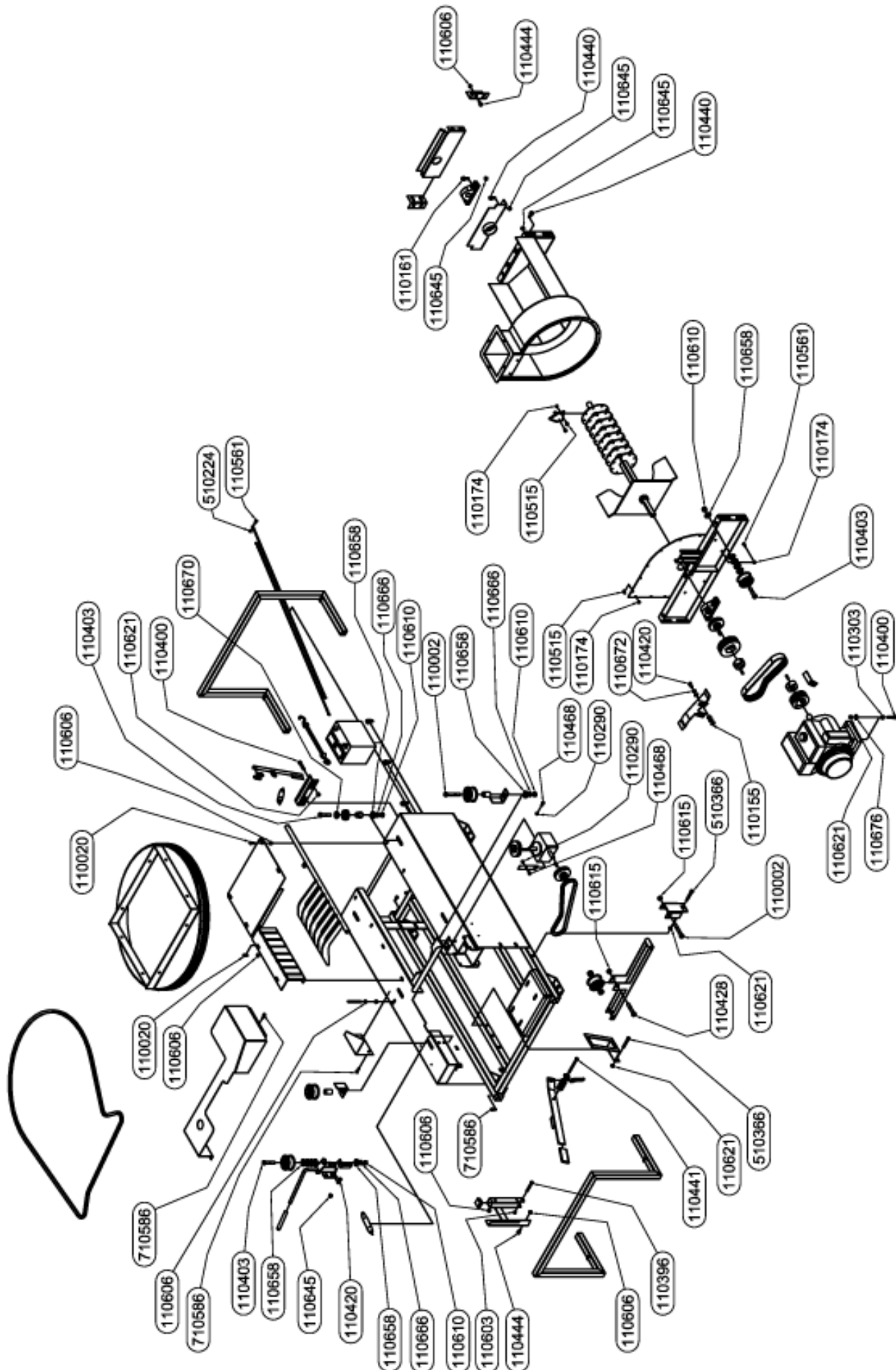
**STRAW BLOWER 1800**  
**SERVICE PARTS**



STRAW BLOWER 1800  
SERVICE PARTS

PART #	QTY	NAME
100361	2	CLAMP, HOSE 1/4"
110287	1	CONNECTING LINK, #80
200019	5	CLAMP, ADEL 5/8 ID
510228	3	KEY, .25 X .25 X 1.0
510241	1	BUSHING, QD 1" SDS
510282	2	3/16 X 1 KEY
520120	1	ADAPTER, 4BI-4MP
900021	1	HOSE, FUEL LINE, SB1800
900024	1	FUEL TANK
910003	1	CAP PLUG
910018	2	SPRING
910024	1	SHIFT ROD COVER
910039	32	CUTTING KNIFE
910044	1	COVER, ENGAGING HANDLE
910046	1	ENGAGING CHANNEL CLIP
910047	1	SPRING
910060	2	HOLD DOWN STRAP
930001	1	BATTERY, STRAWBLOWER GAS
930002	1	BATTERY CABLE, POSITIVE
930003	1	BATTERY CABLE, NEGATIVE
940001	4	NARROW IDLER PULLEY
940002	1	TUB DRIVE BELT
940004	1	GEAR BOX TOP SHEAVE
940006	4	TUB BASE BEARING
940009	2	PILLOW BLOCK BEARING
940011	1	SHEAVE 3.0 X 1
940016	1	GEAR BOX
940017	1	GEAR BOX SIDE SHEAVE
940018	1	GEAR BOX BELT
940020	1	BANDED DRIVE BELT
940025	1	ELECTRIC START ENGINE, 18 HP
940027	1	WIDE IDLER PULLEY
942170	1	SHEAVE, 3/3V4.50 SDS-QD
942172	1	SHEAVE, 3/3V6.65 SH-QD
942179	1	BUSHING, QD 1" SH

STRAW BLOWER 1300, 1800  
BOLTS, NUTS & WASHERS



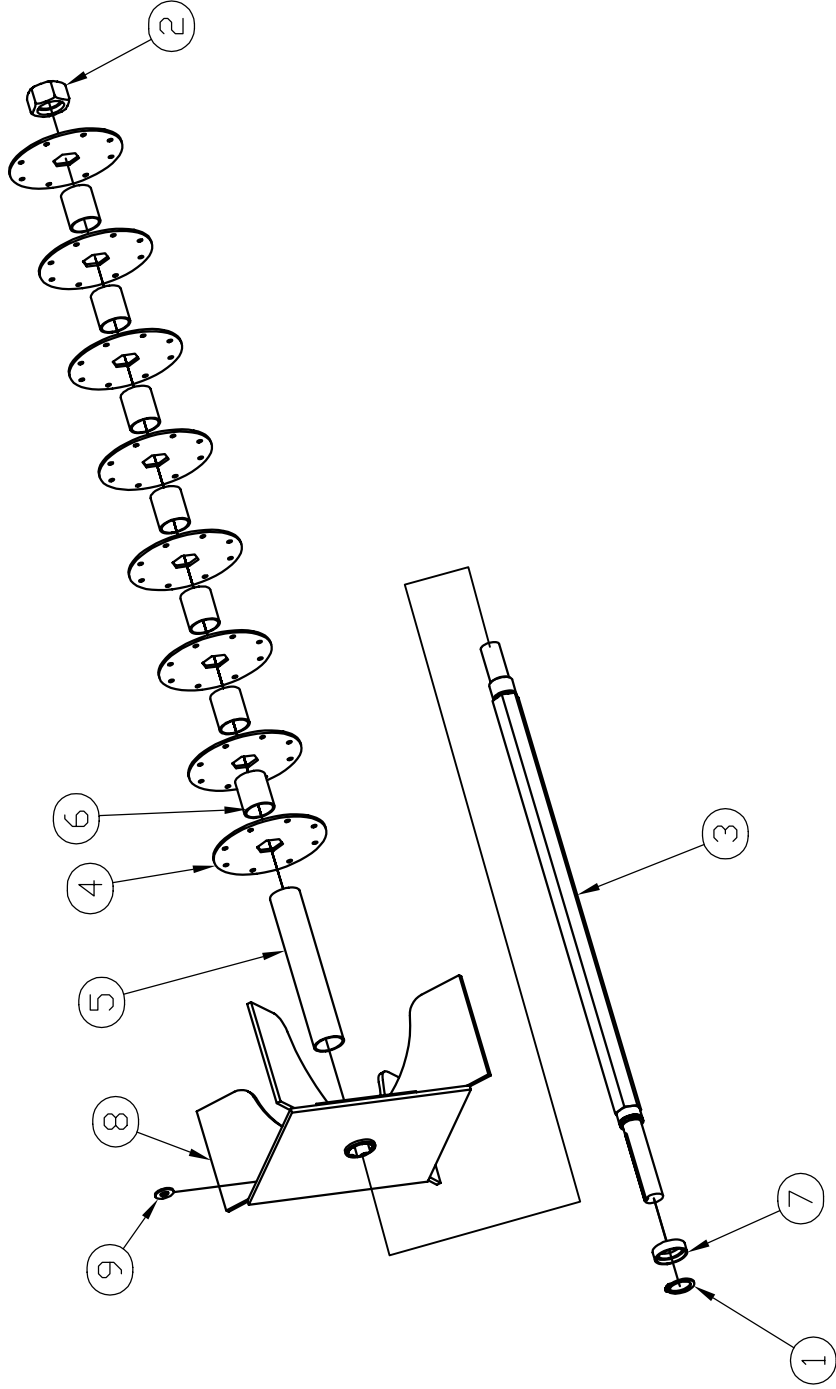
PART #	QTY	NAME
110002	3	BOLT, 1/2-13 X 3.5
110020	6	BOLT, 5/16-18 X .75 CARRIAGE
110155	12	WASHER, 3/8 FLAT, "SAE"
110161	4	BOLT, 3/8-16 X 1.25 WIZ FLANGE
110174	78	NUT, 1/4-20, LOCK (2-WAY)
110290	6	NUT, 1/4-20 WHIZ FLANGE
110303	4	WASHER, FLAT, 3/8 X .112
110396	1	BOLT, 5/16-18 X 2.5
110658	20	WASHER, 1/2 FLAT
110400	6	BOLT, 3/8-16 X 2
110403	6	BOLT, 1/2-13 X 2.5
110603	5	NUT, 5/16-18 LOCK (NYLON)
110420	5	BOLT, 3/8-16 X 1
110606	18	NUT, 5/16-18 WIZ FLANGE
110428	1	BOLT, 1/2-13 X 3
110666	8	WASHER, 1/2 LOCK
510224	2	NUT, 1/4-20
110610	8	NUT, 1/2-13
110672	3	WASHER, 3/8 LOCK
110676	4	WASHER, FLAT .375 STANDARD
510366	3	BOLT, 3/8-16 X 2.50
110615	2	NUT, 1/2-13 LOCK UNI-TORQUE
110440	10	BOLT, 3/8-16 X 1 WIZ FLANGE
110441	1	BOLT, 5/16-18 X 4
110444	9	BOLT, 5/16-18 X .75 WIZ FLANGE
110621	9	NUT, 3/8-16 LOCK
110468	6	BOLT, 1/4-20 X .75 WIZ FLANGE
110515	74	BOLT, 1/4-20 X .5
710586	8	SCREW, 1/4 X 1 TEK SELF TAP
110561	6	BOLT, 1/4-20 X .75
110645	16	NUT, 3/8-16 WIZ FLANGE
110670	4	WASHER, 7/16 FLAT STANDARD



PART #	QTY	NAME
110002	3	BOLT, 1/2-13 X 3.5
110020	6	BOLT, 5/16-18 X .75 CARRIAGE
110155	12	WASHER, 3/8 FLAT, "SAE"
110161	4	BOLT, 3/8-16 X 1.25 WIZ FLANGE
110174	78	NUT, 1/4-20, LOCK (2-WAY)
110290	6	NUT, 1/4-20 WHIZ FLANGE
110303	4	WASHER, FLAT, 3/8 X .112
110378	4	BOLT, 5/16-18 X 2
110396	1	BOLT, 5/16-18 X 2.5
110658	20	WASHER, 1/2 FLAT
110400	6	BOLT, 3/8-16 X 2
110403	6	BOLT, 1/2-13 X 2.5
110603	5	NUT, 5/16-18 LOCK (NYLON)
110420	5	BOLT, 3/8-16 X 1
110606	18	NUT, 5/16-18 WIZ FLANGE
110665	4	WASHER, FLAT 5/16 STANDARD
110428	1	BOLT, 1/2-13 X 3
110666	8	WASHER, 1/2 LOCK
510224	2	NUT, 1/4-20
110610	8	NUT, 1/2-13
110672	3	WASHER, 3/8 LOCK
510366	3	BOLT, 3/8-16 X 2.50
110615	2	NUT, 1/2-13 LOCK UNI-TORQUE
110440	10	BOLT, 3/8-16 X 1 WIZ FLANGE
110441	1	BOLT, 5/16-18 X 4
110444	9	BOLT, 5/16-18 X .75 WIZ FLANGE
110621	9	NUT, 3/8-16 LOCK
110468	6	BOLT, 1/4-20 X .75 WIZ FLANGE
110515	74	BOLT, 1/4-20 X .5
710586	8	SCREW, 1/4 X 1 TEK SELF TAP
110561	6	BOLT, 1/4-20 X .75
110645	16	NUT, 3/8-16 WIZ FLANGE
110670	4	WASHER, 7/16 FLAT STANDARD

ROTOR ASSEMBLY, ALL MODELS  
PART #915026

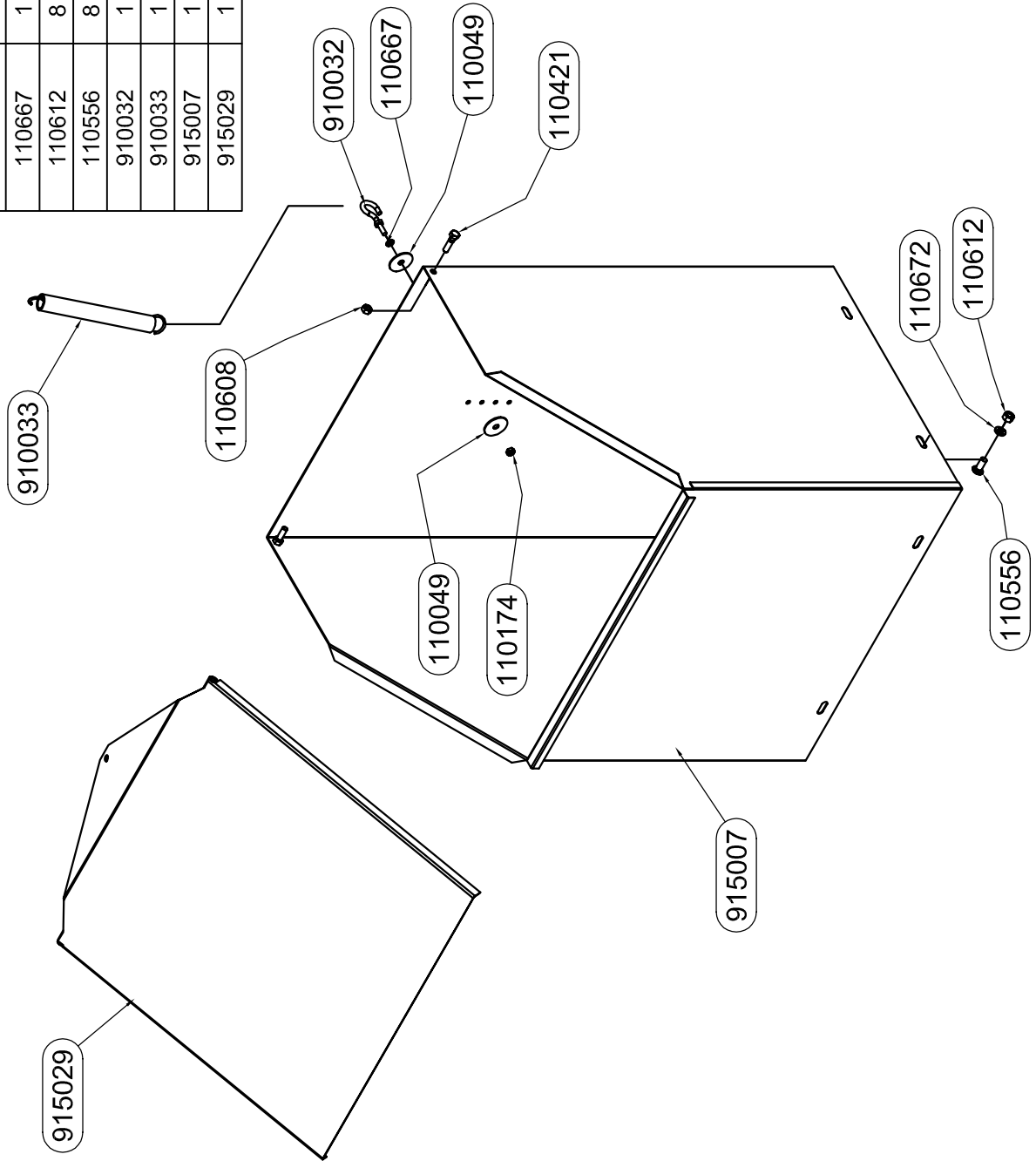
ITEM	QTY	PART #	NAME
1	1	140015	SNAP RING
2	1	910004	ROTOR NUT, MACHINED
3	1	910008	ROTOR SHAFT
4	8	910009	SICKLE SECTION MOUNT
5	1	910011	IMPELLER TO SICKLE MOUNT SPACER
6	7	910012	SICKLE MOUNT SPACER
7	1	910035	SPACER, RETAINING CLIP
8	1	915025	WELDMENT, FAN
9	0	510365	WASHER, FLAT .375 STANDARD





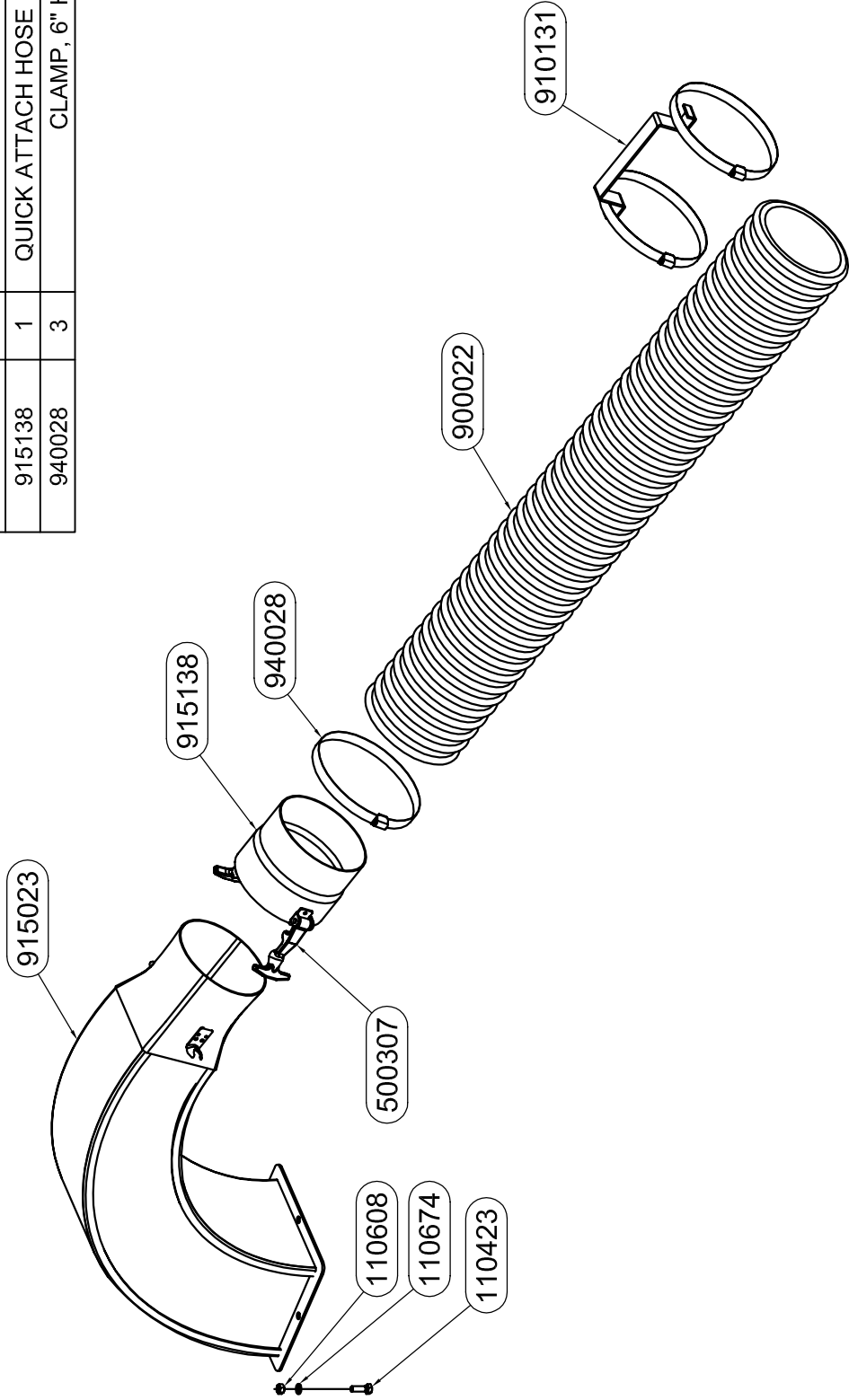
TUB ASSY ALL MODELS

PART #	QTY	NAME
110174	1	NUT, 1/4-20, LOCK (2-WAY)
110672	8	WASHER, 3/8 LOCK
110049	2	WASHER, 5/16 ID 1.5 OD
110421	2	BOLT, 5/16-18 X 1.25
110608	2	NUT, 5/16-18
110667	1	WASHER, 1/4 LOCK
110612	8	NUT, 3/8-16
110556	8	BOLT, 3/8-16 X 1 CARRIAGE
910032	1	LID EYEBOLT
910033	1	LID SPRING
915007	1	BALE TUB ASSY
915029	1	SAFETY LID ASSY




HOSE ADAPTER ASSY - ALL MODELS

PART #	QTY	NAME
500307	2	PULL LATCH ASSEMBLY
110423	4	BOLT, 5/16-18 X 1
110608	4	NUT, 5/16-18
110674	4	5/16 LOCK WASHER
900022	1	HOSE, 6" DISCHARGE
910131	1	HANDLE, HOSE
915023	1	HOSE ADAPTER
915138	1	QUICK ATTACH HOSE END WELDMENT
940028	3	CLAMP, 6" HOSE



**WARNING**




ROTATING CHOPPER CONTACT CAN CAUSE INJURY

TO PREVENT INJURY FROM CHOPPER, CONTACT:

- \* STAY AWAY FROM INLET DURING OPERATION.
- \* KEEP OTHERS AWAY.

900009

**CAUTION**



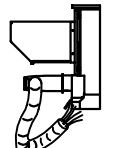
THROWN OBJECTS HAZARD

TO PREVENT INJURY FROM OUTLET PROJECTILES:

- \* STAY AWAY FROM OUTLET DURING OPERATION.
- \* KEEP OTHERS AWAY.
- \* DO NOT DIRECT OUTLET TOWARD PEOPLE.

900011

**CAUTION**



CLEAN MACHINE REGULARLY WITH THE BLOWER HOSE.

900010

**WARNING**

CUT AND REMOVE WIRE / STRING PRIOR TO OPERATION

- FAILURE TO REMOVE WIRE / STRING MAY CAUSE MACHINE DAMAGE / FIRE.


900006

**TO AVOID SERIOUS INJURY OR EXPLOSION**

- \* PROTECT EYES AND AVOID SKIN CONTACT WITH BATTERY ACID.
- \* DO NOT ALLOW OPEN FLAME NEAR CHARGING BATTERY.
- \* ALWAYS DISCONNECT NEGATIVE CABLE FROM BATTERY BEING CHARGED.

500055

**WARNING**



If you can read this sign, a guard has been removed. Do not operate without guard.

160002

**WARNING**

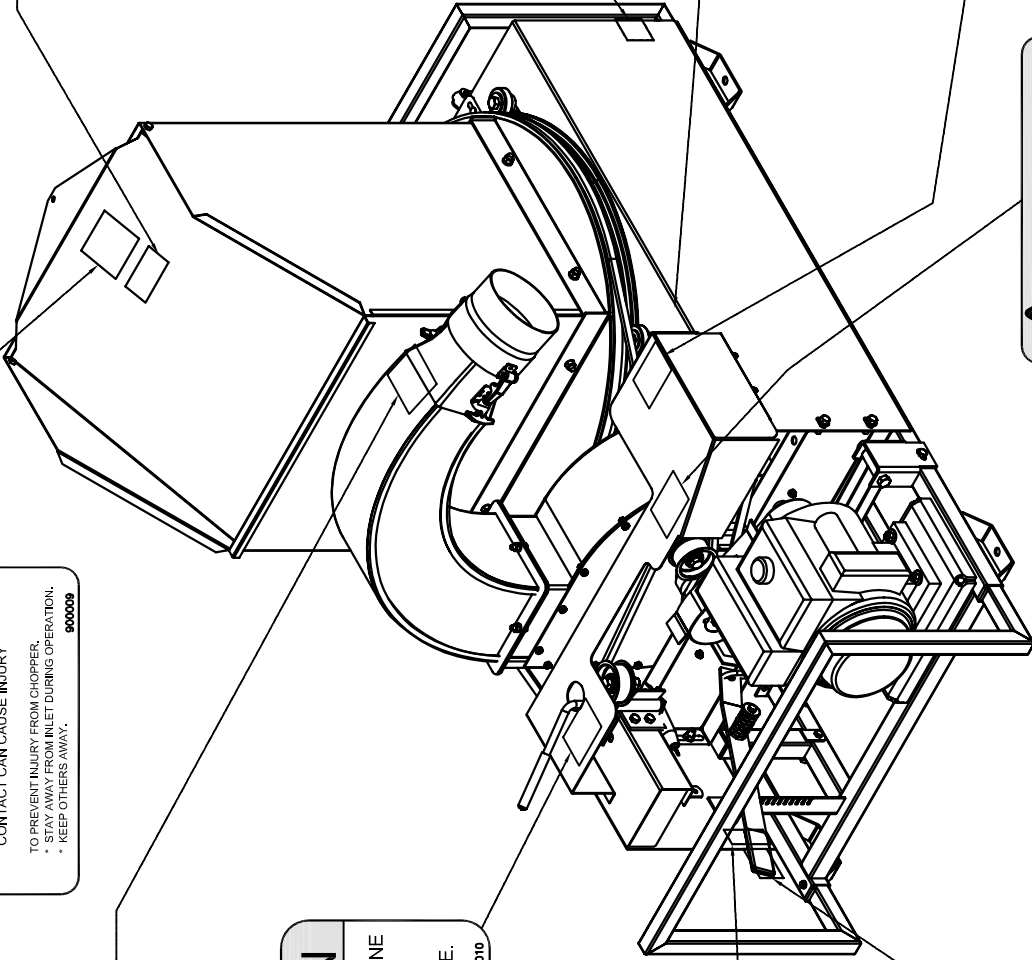
1. KEEP ALL GAUARDS IN PLACE.
2. STOP MACHINE TO ADJUST & LUBRICATE.
3. IF MECHANISM BECOMES CLOGGED, DISCONNECT POWER BEFORE CLEANING.
4. KEEP HANDS, FEET AND CLOTHING AWAY FROM POWER-DRIVEN PARTS.

900008

**WARNING**

AREA AROUND ENGINE MUST BE KEPT CLEAR OF FLAMMABLE MATERIAL

900007



DECAL KITS: SB1300 - 9050001   
 SB1800 - 9050002   
 SB5400 - 9050003

