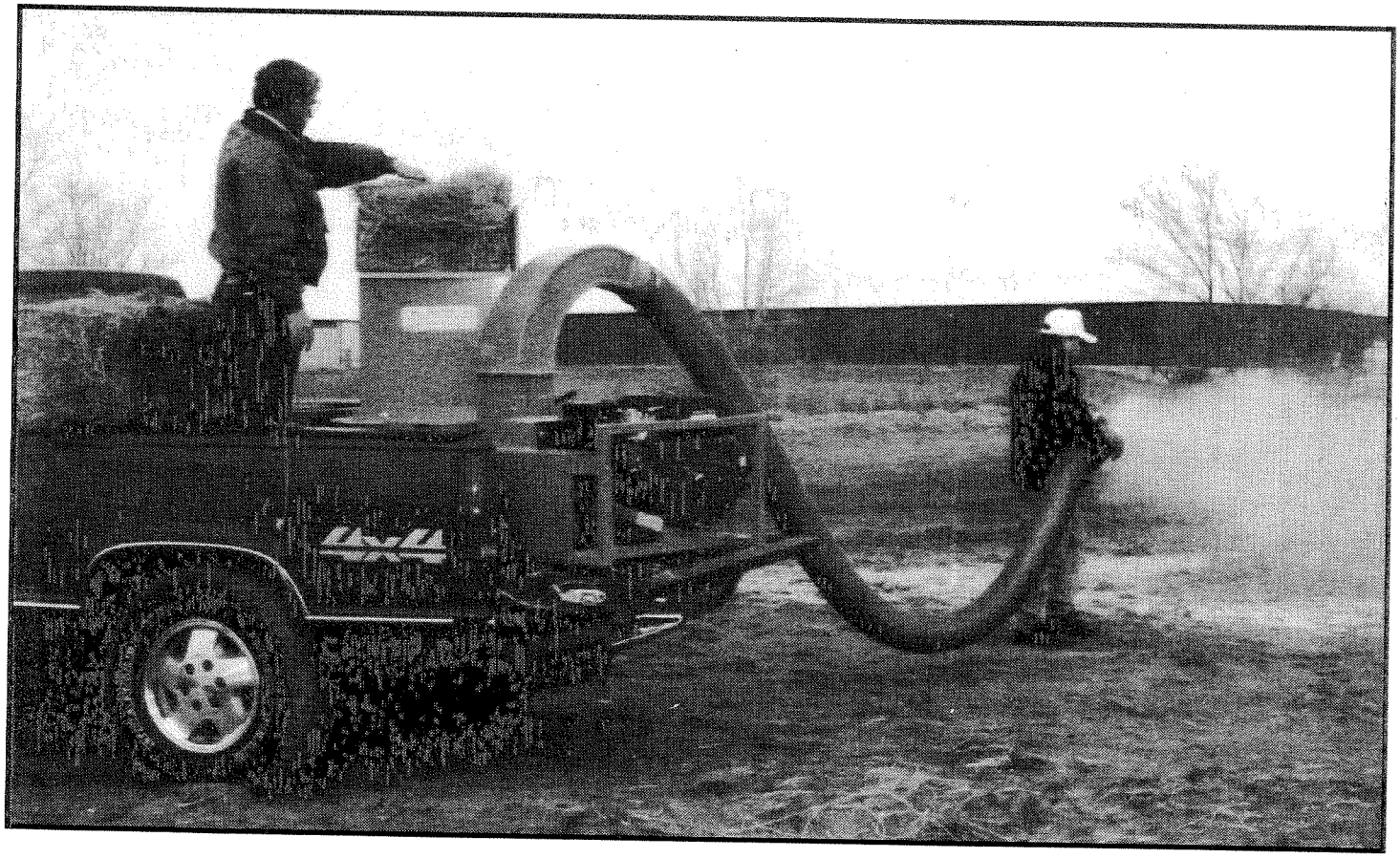
Goossen
INDUSTRIES

Operator's Manual

Bale Chopper



Introduction

This manual gives you assembly, operating, and service information for Self-Powered and PTO Model Bale Choppers. The Table of Contents directs you to the specific information you need.

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

Read and understand all instructional material included with the Bale Chopper or its components before assembling and operating the equipment.

SAFETY WARNING!

- **Never force material onto the cutting knives.**
- **Do not feed bales tied with wire into the Chopper.**
- **Wear approved eye and ear protection while operating the Bale Chopper.**
- **Keep hands and feet out of the tub. Never operate the Bale Chopper with the tub or the safety lid removed.**
- **Check bale tub for children, pets and foreign objects before operating.**
- **Allow the engine to cool sufficiently before adding gasoline. DO NOT allow smoking, sparks, or flames in the vicinity when adding gasoline.**
- **The area around the gasoline engine must be kept clear of flammable material. Periodically use the hose with no material in the machine to blow this area clean. Always keep a fire extinguisher near the Bale Chopper during operation.**
- **The battery, on Bale Choppers with electric start, can produce explosive gasses. Ventilate when charging or using in enclosed 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, and always keep the vent caps tight and level.**
- **Battery electrolyte is an acidic solution, which can cause severe burns if handled improperly. Observe all poison/danger warnings printed on electrolyte cartons and on the battery. Wear splash-proof goggles and protective clothing when adding electrolyte to batteries. Avoid contact of electrolyte with 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.**

Specifications:

BLOWER MODEL BALE CHOPPERS:

SELF-POWERED MODELS

- **NA5000PSME (11 hp.)**
- **NA6000 (13 hp.)**
- **NA8000ESME (18 hp.)**
- **NA8500ESME (18 hp.)**

POWERED BY: 4-cycle Honda Gasoline Engine.

WIDTH: 31" HEIGHT: 51" LENGTH: 55"
WEIGHT: 490 lbs. SHIPPING WT: 565 lbs.
NUMBER OF KNIVES: 32 (NA8500ESME - 4)
4-BLADE IMPELLER: 16.5" dia.
ADJUSTABLE GRATE ASSEMBLY

PTO MODELS

- **NA1000PTOB**
- **NA1500PTOB**

POWERED BY: 540 PTO
WIDTH: 31" HEIGHT: 55" LENGTH: 60"
WEIGHT: 525 lbs. SHIPPING WT: 600 lbs.
NUMBER OF KNIVES: 32
4-BLADE IMPELLER: 16.5" dia.
ADJUSTABLE GRATE ASSEMBLY

360° DIRECTIONAL SPOUT

360° DIRECTIONAL SPOUT HEIGHT: 48"
SPOUT ROTATION: 360°

SUPER-FLEX HOSE

HOSE ADAPTER HEIGHT: 30"
SUPER-FLEX HOSE: 6" X 30' standard length

CUTTING TIME PER BALE*:

360° DIRECTIONAL SPOUT:
Approximately 20 Seconds
HOSE AND ADAPTER:
Approximately 30 Seconds

* Cutting time per bale may vary with different types of material. Times quoted are with dry straw bales fed continuously.

Superior construction in every model:

Every Goossen Bale Chopper has a durable polyester powder paint finish, electro-statically applied to cover completely and keep moisture out. This finish is extremely strong, and resists chipping and cracking.

Taper-locked sheaves and banded 3-belt drive ensure maximum efficiency and long life.

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

Table of Contents

Description of Operation

BLOWER MODEL BALE CHOPPERS:

SELF-POWERED MODELS

- **NA5000PSME (11 hp.)**
- **NA6000 (13 hp.)**
- **NA8000ESME (18 hp.)**
- **NA8500ESME (18 hp.)**

PTO MODELS

- **NA1000PTOB**
- **NA1500PTOB**

The Goossen Bale Chopper, available in self-powered and PTO versions, chops and applies straw for erosion control, bedding and mulching. Depth of cut is easily adjustable while in operation, to handle a variety of materials* and conditions. The standard 30' hose provides even layering and pin-point placement. A 360° directional spout is available for broadcast applications.

*NOTE: Do not shred cardboard with a Goossen Bale Chopper. The density of cardboard will cause damage to cutting knives and to the rotor.

Assembly

ALL MODELS:

TUB COVER SAFETY SHIELD

Using the Hardware supplied:

1. Install the eyebolt through the top hole in the rear tub wall, with a flat washer, lockwasher and nut on each side of the wall.
2. Mount the tub to the tub base with the truss-head bolts, lockwashers and nuts provided. Put the bolt heads inside the tub to provide a smooth inside surface.
3. Insert a 5/16" bolt into each hole at the top of the tub and screw 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, 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.

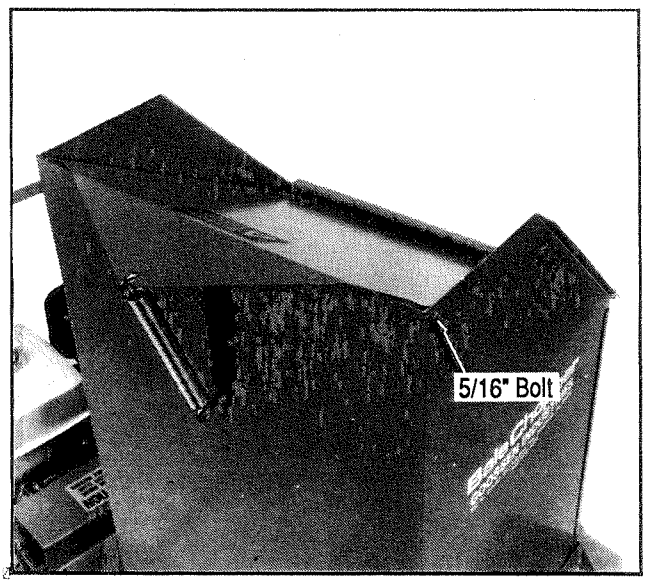


Figure 1. Safety Shield

BLOWER MODEL BALE CHOPPERS:

SUPER-FLEX HOSE AND ADAPTER
(PTO and Self-Powered Blower Models)

Using the hardware supplied:

1. Mount the hose adapter to the Bale Chopper. See Figure 2.
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. See Figure 2.

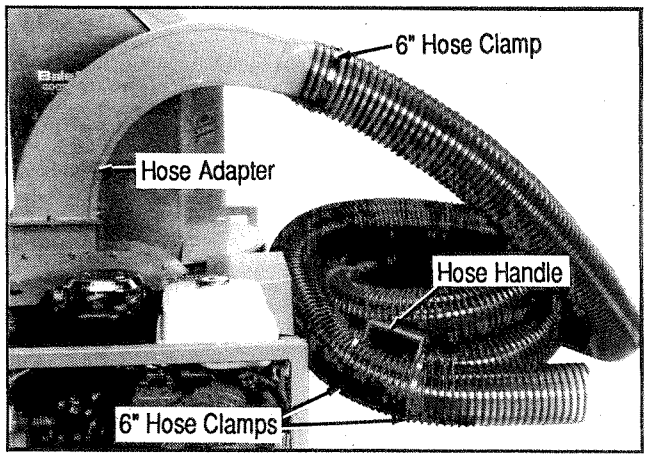


Figure 2. Super-flex Hose & Adapter

360° DIRECTIONAL SPOUT
(PTO and Self-Powered Blower Models)

Using the hardware supplied:

1. Attach the lower spout to the Bale Chopper. See Figure 3.
2. Mount the upper spout on the lower spout. Be sure to install the roller bearings as shown. See Figure 3.
3. Install the crank assembly. See Figure 3. If the sprocket teeth do not fully engage the ring on the upper spout, shim the crank assembly with washers. Lightly lubricate the sprocket teeth, the areas of contact between the upper spout and the lower spout, and the areas where the crank contacts its brackets.
4. Attach the spout extension to the upper spout. See Figure 3.

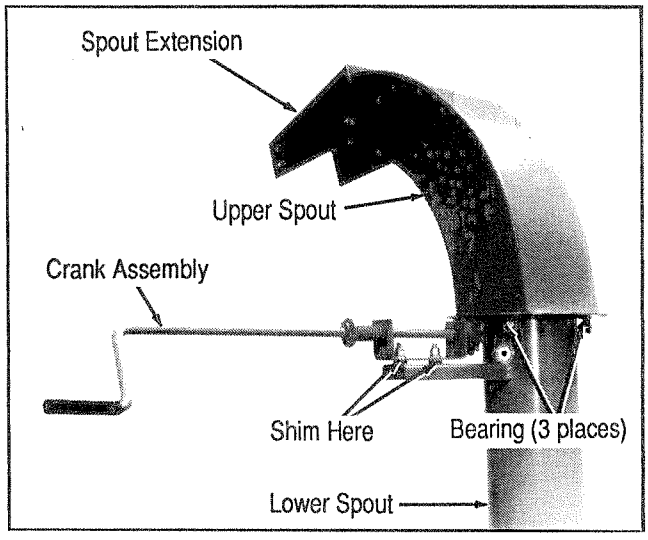


Figure 3. Spout Attachment & Crank Assembly

PTO BLOWER MODEL ASSEMBLY

1. Install the pins provided and connect your three-point hitch to the Bale Chopper.
   Do Not connect the PTO drive shaft at this time.
2. Raise the Bale Chopper to the height where the PTO drive shaft would be level, if installed.
3. Connect the drive shaft to the Bale Chopper.
4. Hold the drive shaft level, with the 540 yoke aligned beside the PTO shaft on the tractor.
5. Allow for 3/4" clearance between the outer shield and the bell housing at the Bale Chopper end of the drive shaft. See Figure 4.
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.

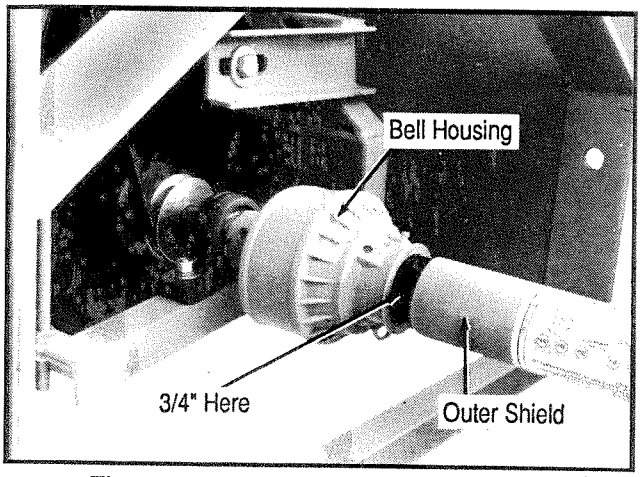


Figure 4. PTO Drive Shaft Installation

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 shaft 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.

SELF-POWERED BLOWER MODEL ASSEMBLY

Battery

The battery is shipped without electrolyte. Therefore, the battery must be filled with sulfuric acid electrolyte before the Bale Chopper 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 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 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 acid to just above the separators. DO NOT OVERFILL.
3. Reinstall the vent caps, then 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 enclosed 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. Shield eyes when working near the battery, and 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 charger manufacturer'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 with the terminals on the side of the battery nearest the wall of the Bale Chopper, and secure the battery in position with the hold-down provided.

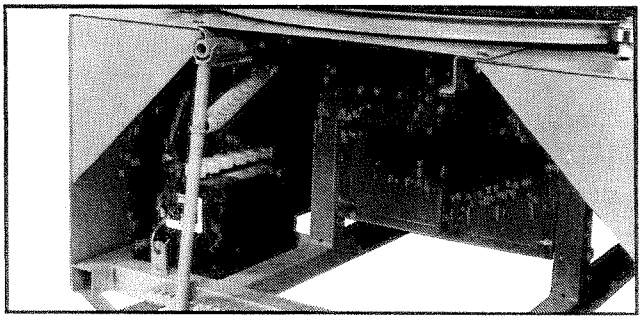


Figure 5. Battery Location

3. Connect the cables to the proper terminals, connecting the UNGROUNDED cable first. Do not overtighten. Apply a commercial battery anti-corrosion material or petroleum jelly to the terminals, to minimize corrosion.

Control Identification

BLOWER MODELS-PTO

SAFETY WARNING!

- **Blade rotation is started and stopped by means of the tractor PTO, and all control levers are on the tractor.**

Tub Rotation Lever

Figure 6 shows the location and action of the lever which controls tub rotation.

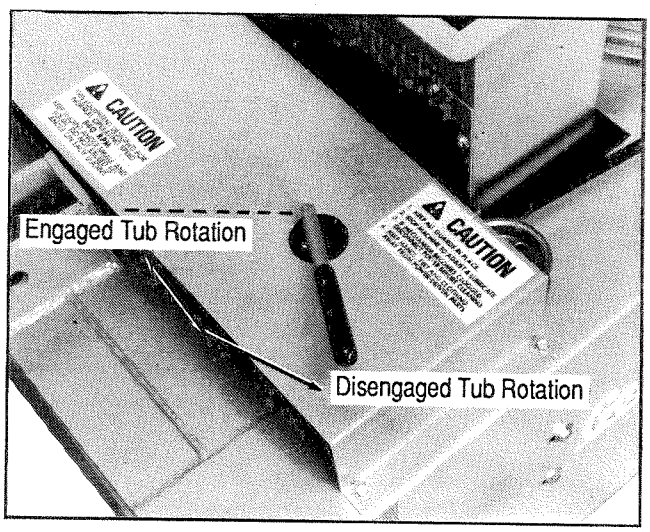


Figure 6. Tub Rotation Lever (PTO Model)

BLOWER MODEL–SELF-POWERED

Blade Rotation Lever

Figure 7 shows the location and action of the lever which causes the cutting blades to move. This lever has a locking tab on it, which locks into position in the teeth shown. The lever must be held to the right to release the locking tab, when it is being moved up or down.

(ON SELF-POWERED BLOWER MODELS WITH AN ELECTRIC CLUTCH, the blade rotation lever is replaced by a clutch engagement/disengagement switch, located on the motor control panel, just below the key. UP engages the clutch, DOWN disengages the clutch.)

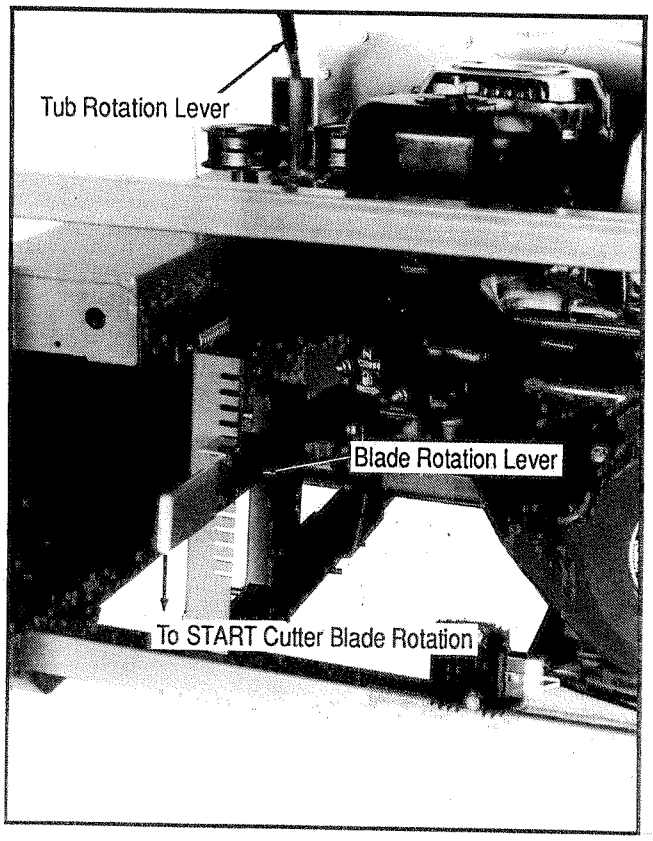


Figure 7. Rotary-Blade Engagement Lever (Self-Powered Model)

Tub Rotation Lever

Figure 8 shows the location of the lever which engages the tub assembly.

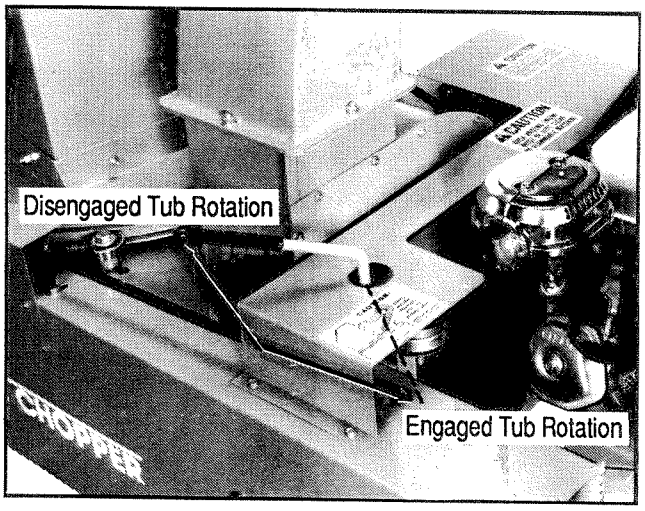


Figure 8. Tub Rotation Lever (Self-Powered Model)

Operation

SAFETY WARNING!

- **Wear approved eye and ear protection while operating the machine.**
- **Keep all guards in place during operation. Never operate the Bale Chopper with the tub removed.**
- **Before operating the machine, check to ensure that all belt guides and snubbers are in place, to prevent belts from slipping off the pulleys and systems from being accidentally engaged.**
- **Check bale tub for children, pets and foreign objects before operating.**
- **Never push material onto the cutters with your hands or feet.**

Note: The Bale Chopper is gravity-fed, and it 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 into the tub.

SAFETY WARNING!

- **Periodically clean chopped material away from engines to lessen the possibility of fire. Always keep a fire extinguisher near the Bale Chopper during operation.**

Before operating the Bale Chopper, check the tension on the belts.

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

BLOWER MODELS–PTO

A set of belts between the PTO shaft and the cutter shaft assembly drives the cutting blades whenever the PTO driveshaft is turning.

SAFETY WARNING!

- **Cutting blade rotation cannot be controlled from the Bale Chopper.**

The shaft which drives the cutting blades also drives a gear box, through a second belt. A lever forces an idler pulley against a belt between the gear box and the tub, causing the bale to turn.

To begin operation:

1. Make sure the tub rotation lever is disengaged.
2. Engage the PTO, to start blade rotation.
3. Set the first bale into the tub (if the bales are bound by wire instead of string or plastic, remove the wires before setting the bales into the tub).
4. Engage the tub rotation lever.

   Note: Remove the strings from the bale, as soon as they have been cut.
5. Add another bale when there is about 1/3 bale left in the tub.

To stop operation:

1. Move the lever to stop the tub.
2. Disengage the tractor PTO, to stop blade rotation.

BLOWER MODELS–SELF-POWERED

Belts run between the shaft assembly, which contains the cutting blades, and the engine; and between the shaft assembly and a gear box.

Moving a lever to force an idler pulley against the belts between the engine and the shaft assembly drives the shaft (and the cutting blades). This action also drives the gear box.

Moving a second lever forces an idler against a belt running between the gear box and the tub, to turn the bale. The bale will not turn unless the cutting blades are moving.

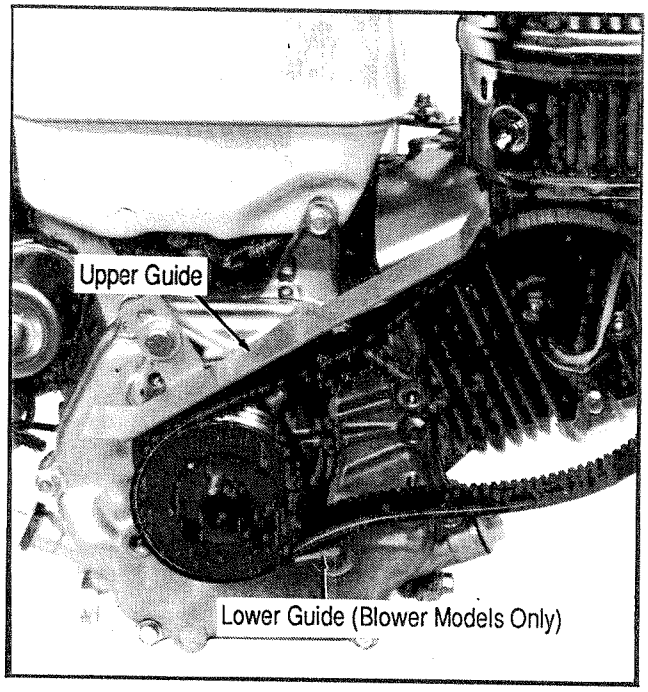


Figure 9 . Engine-mounted Belt Guides
(engine removed from chassis for photo)

⚠ SAFETY WARNING!

- **Make sure that the belt guides (shown in Figure 9) are in place on the engine, and that the lower guide is positioned so that the belt bulges away from the pulley when it is slack. This helps prevent accidental engagement of the cutting blades.**

To begin operation:

1. Make sure all tub and rotor engaging mechanisms are disengaged. See Figures 7 & 8.
2. Start the engine, following the manufacturer's instructions.
3. Engage the rotor to start blade rotation by manual lever.
4. Place the first bale into the tub (if the bales are bound by wire instead of string or plastic, remove the wires before setting the bales into the tub).

   Note: Remove the strings from the bale as soon as they have been cut.
5. Use the tub rotation lever to start the bale turning.
6. Add another bale when there is about 1/3 bale left in the tub.

To stop operation:

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

Adjustments

BELT TENSION ADJUSTMENT

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

Note: Do not overtighten belts. Excessive tension can cause premature bearing, gearbox, and clutch failure.

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

BLOWER MODEL–PTO

The belts which turn the cutter shaft on the PTO Models are adjusted by means of two 1/2" threaded rods located beside the PTO shaft. See Figure 10.

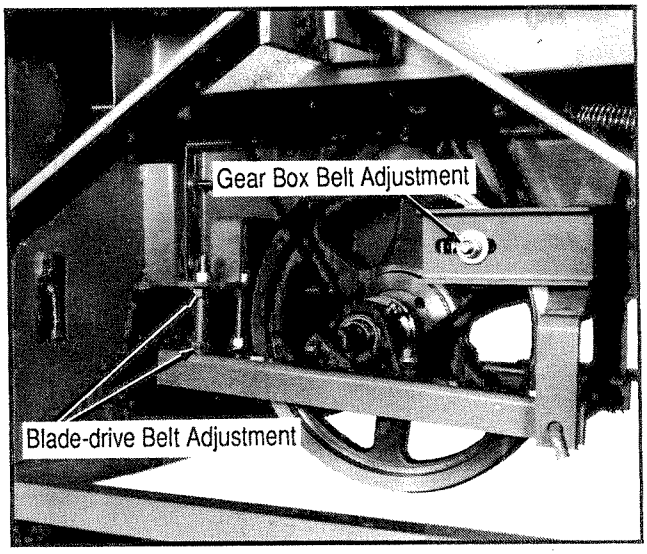


Figure 10.
Belt Tension Adjustment Points(PTO Models)

These rods adjust the position of the bearing bracket, to change belt tension.

The belt which transmits power to the gear box to rotate the tub is adjusted by means of a pulley mounted in a slotted bracket (see Figure 10.)

The belt which turns the tub is adjusted by moving an adjustable idler. See Figure 11.

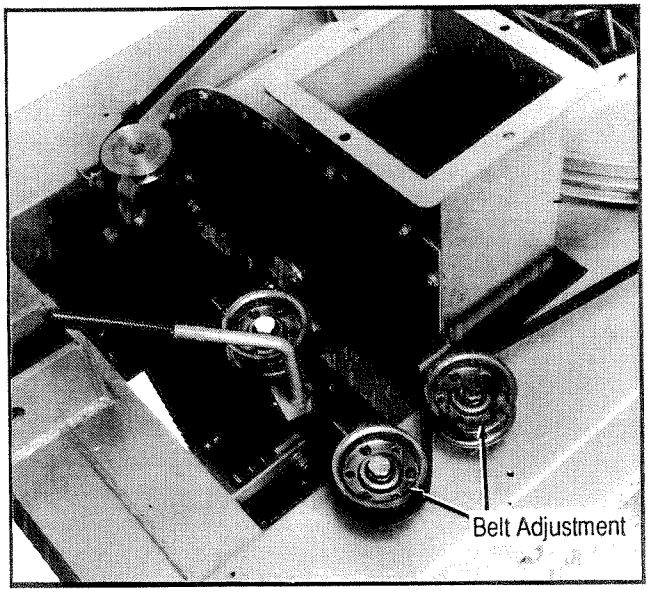


Figure 11.
Tub Belt Tension Adjustment (PTO Models)
(Shown with tub, spout and shield removed)

BLOWER MODEL–SELF-POWERED

The belts which turn the cutter shaft on the Self-Powered and PTO Models are adjusted by relocating the engine in its mounting slots. Loosen the bolts through both the belt tightening bracket and the reinforcement plate under the engine, then turn the adjustment bolt at the side of the engine mounting place to move the engine and adjust belt tension.

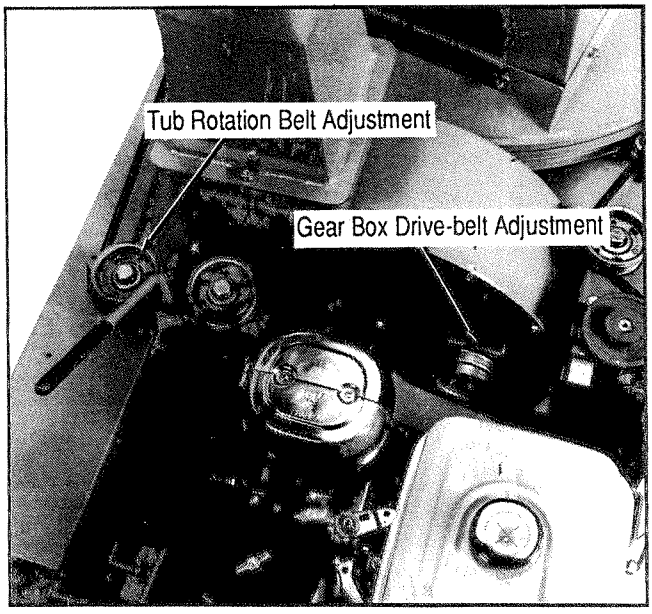


Figure 12. Belt Tension Adjusting Points
(Self-Powered Models)

The belt which transmits power to the gear box is adjusted by means of an idler pulley mounted in a slotted bracket beside the gear box. See Figure 12.

The belt which turns the tub is adjusted by moving an adjustable idler. See Figure 12.

BLOWER MODELS

Depth of cut is adjusted by means of a lever located at the rear of the machine (the end opposite the power input). The lever moves one direction to raise the grate on the self-powered model, and the opposite direction to raise the grate on the PTO models (due to blade-rotation requirements).

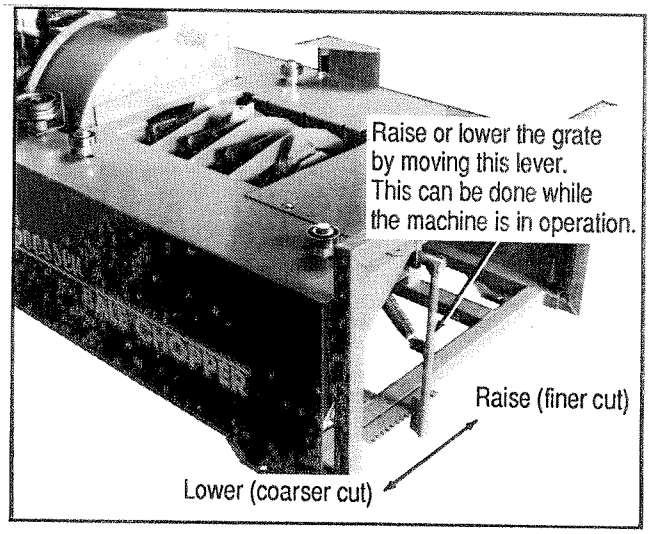


Figure 13. Depth-of-Cut Adjustment (Blower Models)
(Tub base removed for clarity. Self-Powered Model shown – PTO Model adjustment lever is on right and directions for raising and lowering are reversed)

Material Distribution

BLOWER MODELS

For blower model Bale Choppers, the spout adapter and 30' by 6" hose enable pinpoint placement and efficient distribution of mulching materials. The directional spout enables broadcasting of chopped material.

Service

BREAK-IN SERVICE

After the first 10-15 bales:
1. Check belts. Retension if needed.
2. Tighten set screws on bearings.
3. Check the tub carrier bearings and make necessary adjustments. See Figure 14.

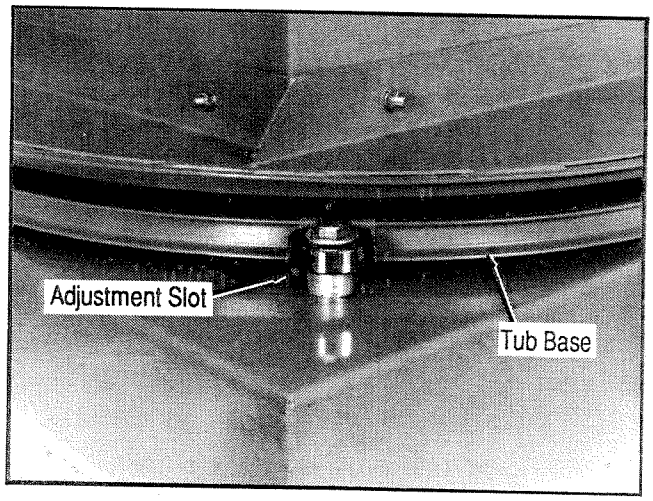


Figure 14. Tub Carrier Bearing Position

Periodically check belt tension and carrier bearing adjustment.

LUBRICATION

360° Directional Spout

As needed:
Lightly lubricate sprocket teeth, areas of contact between the upper spout and the lower spout, and areas where the crank contacts its mounting brackets.

Bearings
The bearings are sealed and require no lubrication.

Gear Box

Blower Models–PTO

Use 80-90 EP Gear Oil.

At 100 HRS:
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 Gear Oil.

Every 6 months:
Repeat Steps #1 - #3 above to change lubricant.

Blower Model–Self-Powered

No oil change or addition required unless unit leaks. use Mobil SHC 634 wormgear lubricant, or equivalent.

Gasoline Engine:

Follow the manufacturer's instructions.

KNIFE REPLACEMENT

SAFETY WARNING!

- **Wear protective gloves whenever handling blades or working near them.**

- **Knives and their retaining hardware rotate at high speed. It is essential that they be mounted securely to prevent accidents from flying metal. Mount the knives only with Grade 5 1/4"-20 x 1/2" bolts and locknuts, treated with Loctite® (or equivalent). Tighten lock nuts to 18 in. lbs.**

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

The rotary shaft assembly has been factory balanced. Whenever knives are replaced, or additional knives are attached to the assembly, this balance must be maintained. It is best to replace knives with serrated knives, since these pull the material down into the machine. New bolts and nuts are necessary when turning or replacing knives, and Loctite® must be used on each bolt.

To maintain balance:

A. Mount replacement knives only in the places from which the worn knives were removed.

B. Mount additional knives only as opposing pairs on each plate, and in the patterns shown in Figure 22.

   Note: Do not put any knives on the rotor plate furthest from the impeller on Blower models.

C. Do not remove nuts and bolts installed as weights, unless you are mounting knives in those holes.

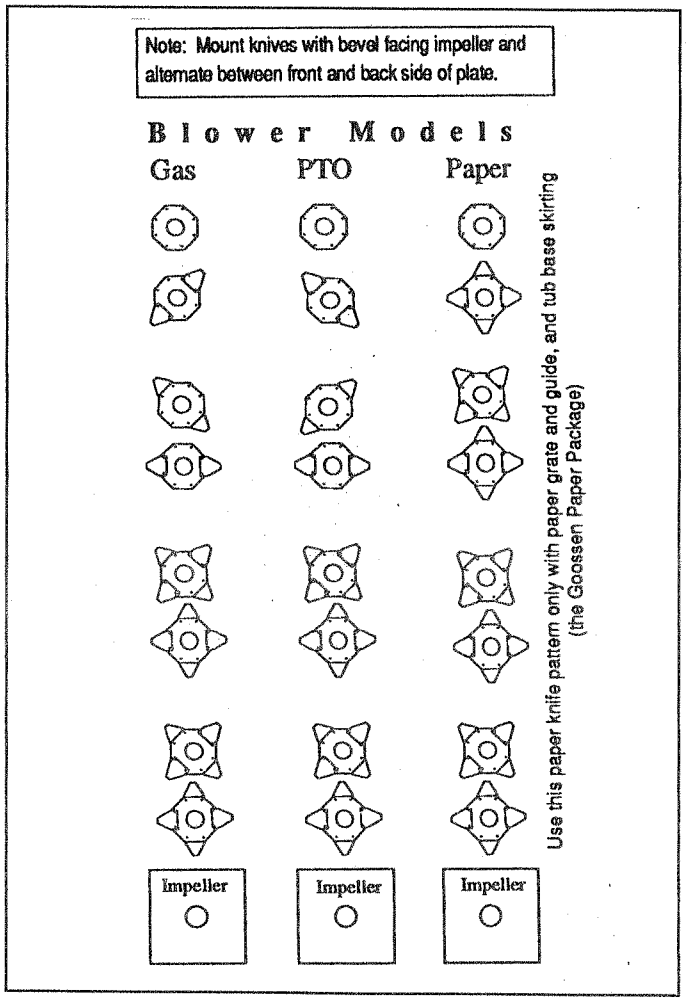


Figure 15. Knife Installation Pattern

To replace knives:

1. Remove the belt from around the tub.
2. Loosen the bolts mounting the rear tub carrier bearings. See Figure 14.
3. Slide the loosened bearings toward the rear and remove the tub from the Bale Chopper.
4. Unbolt and remove the grate guide (Blower models).
5. With the grate adjustment lever (Figures 18 and 19), rotate the grate upward 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 secured with Loctite® (or equivalent), and tighten to 18 in. lbs.
7. Return the grate to its original position.
8. Reinstall the tub.

Troubleshooting

ENGINE:

PROBLEM:
Engine shuts off during operation

WHAT TO CHECK:
- Engine may be low on fuel.
- Engine may be low on oil. (The Honda Engine is equipped with an "Oil Alert" automatic shut-off.)
- Air breather may be clogged.

BELTS:

PROBLEM:
Belts slip

WHAT TO CHECK:
- Tension adjustment.
- Load may be excessive.
- Knives may be too dull.
- Grate setting may be too low (cutting too deeply).
- Foreign material may be lodged in the chopper (on knives or blower paddles).
- Bearings may have seized.

PROBLEM:
Belts wear rapidly;
Belts jump, catch, or twist

WHAT TO CHECK:
- Pulleys may not be properly aligned. Check with straightedge across faces of pulleys.

CUTTING AND DISCHARGE:

PROBLEM:
Hose plugs

WHAT TO CHECK:
- Material being chopped may have too much moisture in it.
- RPM may not be high enough. (540 RPM max. is recommended for PTO models. Adjust throttle to increase RPM to required levels. DO NOT attempt to adjust the engine governor on gas models — it should not exceed the factory setting of 3200 RPM, or 3600 RPM for 18 hp.)
- Foreign material may be lodged in the hose.
- Grate setting may be too low.

PROBLEM:
Slow cutting time

WHAT TO CHECK:
- Grate setting may be too high.
- Material being cut may have too much moisture in it.
- Knives may be dull.
- RPM may be too low (but do not exceed 540 max. for PTO models, 3200 or 3600 max. for gas models –see above.)

GEAR BOX:

PROBLEM:
Oil leaks

WHAT TO CHECK:
- Housing bolts may be loose.
- Oil seals may need replacement

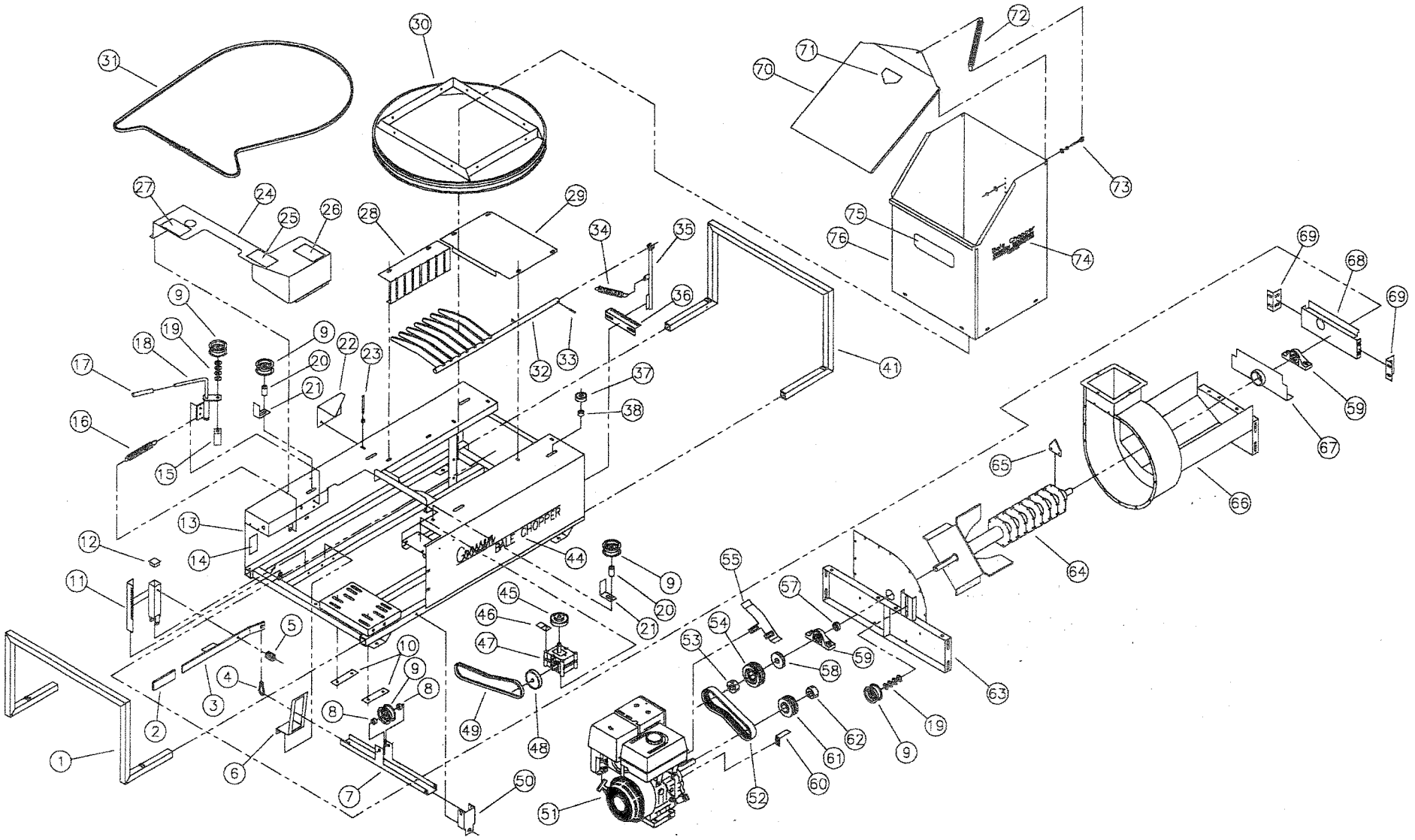
PROBLEM:
Gear box overheats

WHAT TO CHECK:
- Oil level may be too low.
- Dirt or grease may have accumulated around the gear box.

PROBLEM:
Gear box vibrates, is very noisy

WHAT TO CHECK:
- Oil level may be low.
- Components may be worn or damaged.
- Load may be excessive.

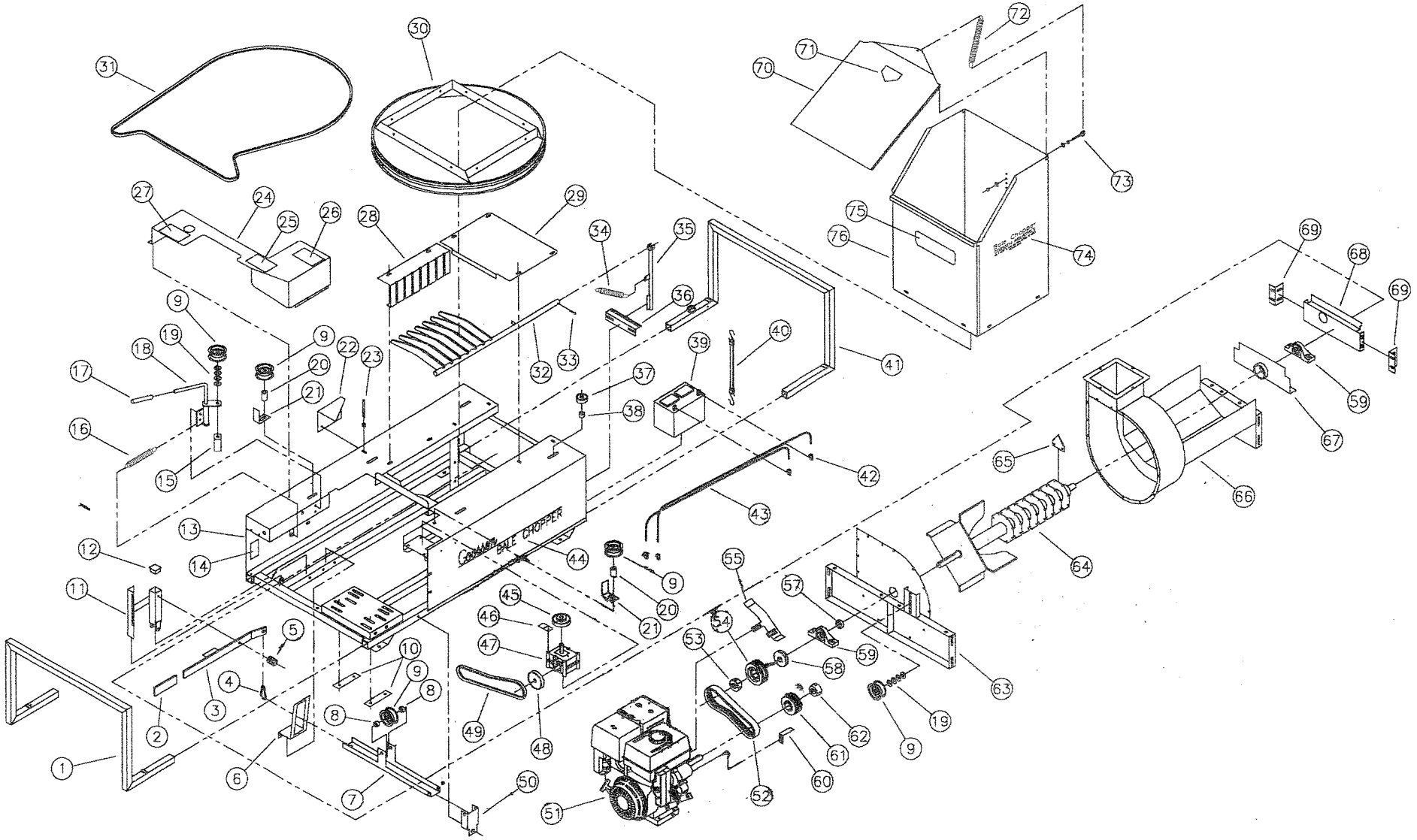
NA5000PSME
MAINFRAME COMPONENTS



NA5000PSME MAINFRAME COMPONENTS

Ref. No.	Part No.	Description	No. Req'd
1	GF-225	Front Lift Handle	1
2	GF-226	Cover for Engaging Handle	1
3	GF-205	Engaging Handle	1
4	GF-229	Engaging Channel Clip	1
5	GF-206	Spring	1
6	GF-230	Engaging Channel Guide	1
7	GF-203	Engaging Channel	2
8	GF-213	Engaging Channel Spacer	2
9	GF-251	Wide Idler Pulley	1
10	GF-231	Reinforcement Plate	2
11	GF-204	Engaging Handle Stop Assembly	1
12	PF-215	1 1/2" Cap Plug	1
13	GF-500	Mainframe	1
14	GF-524-00	Decal (BCG-3 Serial Number)	1
15	PF-242	Shift Assembly Stop	1
16	PF-211	Spring	1
17	PF-225	Plastic Cover (Shift Assy. Handle)	1
18	GF-218	Shift Assembly	1
19		Flat Washer (1/2")	4
20	PF-213	Idler Spacer	2
21	PF-212	Belt Guide	2
22	GF-217	Tub Belt Shield	1
23	PF-216	Belt Guide	1
24	GF-502-00	Front Belt Shield	1
25	GF-245-00	Decal (Area Around Engine)	1
26	BLP-106-00	Decal (Danger Keep Hands and Feet Away)	1
27	GF-247	Decal (Clean With Hose)	1
28	PF-337	7 Finger Grate Guide	1
29	PF-534	Rear Rotor Cover	1
30	PT-301	Tub Base Assembly (2-Wire)	1
31	PT-511	Tub Drive Belt, Blower Models	1
32	GF-628-00	7 Finger Grate	1
33	PF-226	Roll Pin	1
34	PF-211	Spring	1
35	GF-242	Grate Lever	1
36	PF-231	Grate Adjustment Bracket	1
37	PF-219	Tub Base Bearing	1
38	PF-220	Tub Base Bearing Spacer	1
39	GF-235	Battery	1
40	GF-236	Battery Hold Down Strap	1
41	GF-246	Rear Lift Handle	1
42	GF-232	Battery Cable Terminal End	2
43	GF-237	Battery Cable Set	1
44	PF-243-00	Decal (Goossen Mainframe)	2
45	PF-206	Gear Box Top Sheave (AK32 x 5/8")	1
46	GF-215	Belt Guide	1
47	GF-214	Gear Box (15:1 Ratio)	1
48	GF-506	Gear Box Sheave (AK34 x 5/8")	1
49	GF-520-00	Gear Box Belt (4L370)	1
50	GF-212-00	Engaging Channel Swivel	1
51	GF-400-00	Electric Start Honda Engine (11 hp.)	1
52	GB-223-00	Banded Drive Belt (3/3VX315)	1
53	GB-204-00	Taper Lock Bushing (1610 x 1" 1K)	1
54	GB-203-00	Drive Sheave (3/3V 5.0 -1610)	1
55	GB-105-00	Upper Drive Belt Guide	1
57	PB-502-00	Impeller End Spacer	1
58	PB-113-00	Sheave, 3.0 x 1"	1
59	PB-105-00	Pillow Block Bearing	2
60	GB-106-00	Lower Drive Belt Guide	1
61	GB-504-00	Drive Sheave (3/3V 3.65)	1
62	GB-204-00	1610 x 1" Taper Lock Hub	1
63	GB-502-00	Blower Trough Front	1
64	PB-601-00	Impeller Even Spaced Rotor (Gas #2388 & PTO#1244 ON)	1
65	PB-109-00	Cutting Knife	32
66	GB500-00	Blower Trough Assembly	1
67	PF-235-00	Rear Bearing Guard	1
68	GF-255-00	Rear Frame Plate	1
69	GF-256-00	Rear Frame Plate Bracket	2
70	PT-312-01	Safety Lid	1
71	BLP-106-00	Decal (Danger Keep Hands and Feet Away)	1
72	PT-316-00	Lid Spring	1
73	PT-313-00	Lid Eyebolt	1
74	PT-321-00	Decal (Goossen Tub)	2
75	PT-320-00	Decal (Caution Cut & Remove Strings)	1
76	PT-300-00	Bale Tub (2-Wire)	1

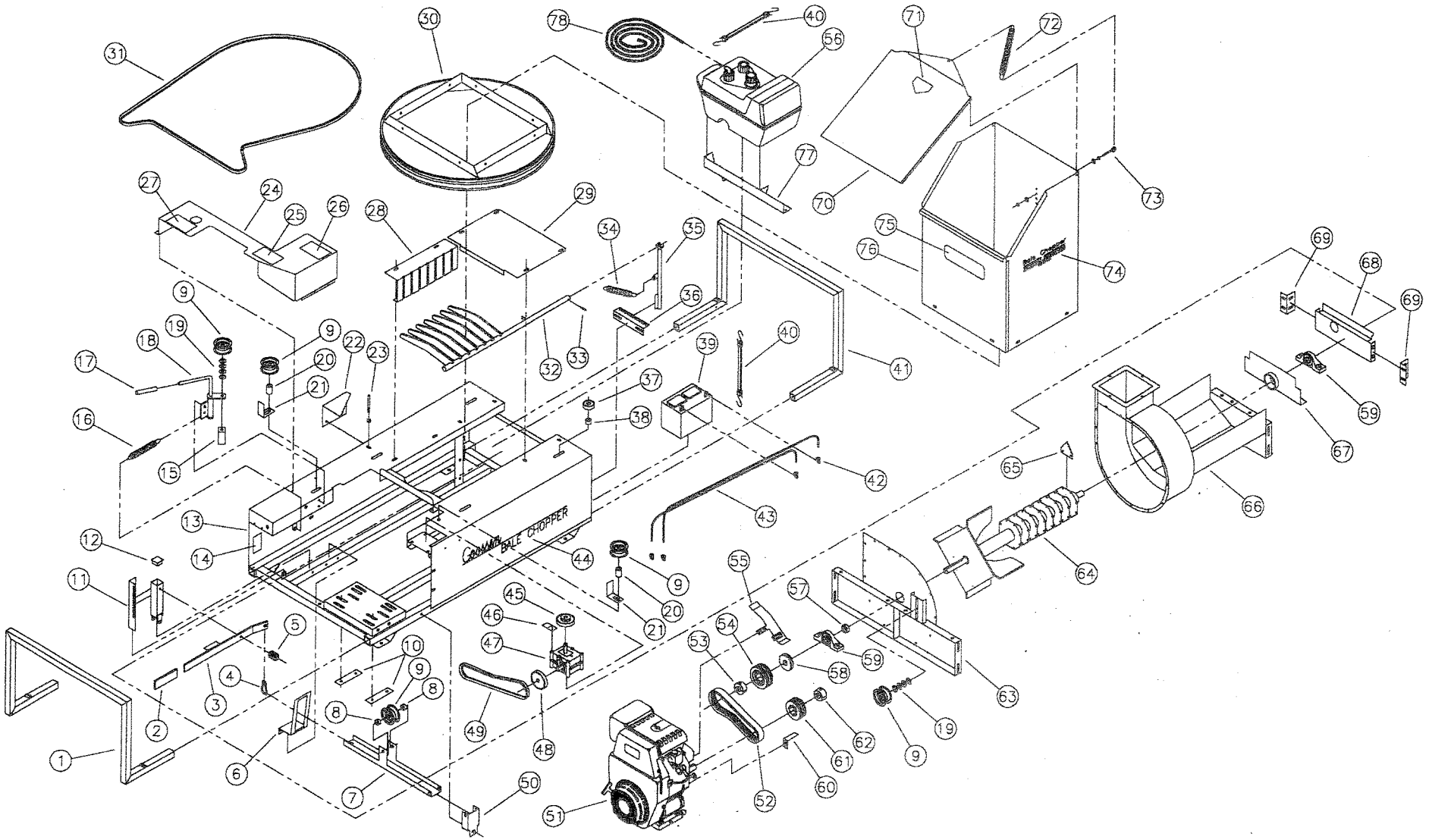
NA6000
MAINFRAME COMPONENTS



NA6000 MAINFRAME COMPONENTS

Ref. No.	Part No.	Description	No. Req'd
1	GF-225	Front Lift Handle	1
2	GF-226	Cover for Engaging Handle	1
3	GF-205	Engaging Handle	1
4	GF-229	Engaging Channel Clip	1
5	GF-206	Spring	1
6	GF-230	Engaging Channel Guide	1
7	GF-203	Engaging Channel	2
8	GF-213	Engaging Channel Spacer	2
9	GF-251	Wide Idler Pulley	1
10	GF-231	Reinforcement Plate	2
11	GF-204	Engaging Handle Stop Assembly	1
12	PF-215	1 1/2" Cap Plug	1
13	GF-500	Mainframe	1
14	GF-524-00	Decal (BCG-3 Serial Number)	1
15	PF-242	Shift Assembly Stop	1
16	PF-211	Spring	1
17	PF-225	Plastic Cover (Shift Assy. Handle)	1
18	GF-218	Shift Assembly	1
19		Flat Washer (1/2")	4
20	PF-213	Idler Spacer	2
21	PF-212	Belt Guide	2
22	GF-217	Tub Belt Shield	1
23	PF-216	Belt Guide	1
24	GF-502-00	Front Belt Shield	1
25	GF-245-00	Decal (Area Around Engine)	1
26	BLP-106-00	Decal (Danger Keep Hands and Feet Away)	1
27	GF-247	Decal (Clean With Hose)	1
28	PF-337	7 Finger Grate Guide	1
29	PF-534	Rear Rotor Cover	1
30	PT-301	Tub Base Assembly (2-Wire)	1
31	PT-511	Tub Drive Belt, Blower Models	1
32	GF-628-00	7 Finger Grate	1
33	PF-226	Roll Pin	1
34	PF-211	Spring	1
35	GF-242	Grate Lever	1
36	PF-231	Grate Adjustment Bracket	1
37	PF-219	Tub Base Bearing	4
38	PF-220	Tub Base Bearing Spacer	4
39	GF-235	Battery	1
40	GF-236	Battery Hold Down Strap	1
41	GF-246	Rear Lift Handle	1
42	GF-232	Battery Cable Terminal End	2
43	GF-237	Battery Cable Set	1
44	PF-243-00	Decal (Goossen Mainframe)	2
45	PF-206	Gear Box Top Sheave (AK32 x 5/8")	1
46	GF-215	Belt Guide	1
47	GF-214	Gear Box (15:1 Ratio)	1
48	GF-506	Gear Box Sheave (AK34 x 5/8")	1
49	GF-520-00	Gear Box Belt (4L370)	1
50	GF-212-00	Engaging Channel Swivel	1
51	CSP-100-00	Electric Start Honda Engine (13 hp.)	1
52	GB-223-00	Banded Drive Belt (3/3VX315)	1
53	GB-204-00	Taper Lock Bushing (1610 x 1" 1K)	1
54	GB-503-00	Drive Sheave (3/3V 4.5-1610)	1
55	GB-105-00	Upper Drive Belt Guide	1
57	PB-502-00	Impeller End Spacer	1
58	PB-113-00	Sheave, 3.0 x 1"	1
59	PB-105-00	Pillow Block Bearing	2
60	GB-106-00	Lower Drive Belt Guide	1
61	GB-504-00	Drive Sheave (3/3V 3.65)	1
62	GB-204-00	1610 x 1" Taper Lock Hub	1
63	GB-502-00	Blower Trough Front	1
64	PB-601-00	Impeller Even Spaced Rotor (Gas #2388 & PTO#1244 ON)	1
65	PB-109-00	Cutting Knife	32
66	GB500-00	Blower Trough Assembly	1
67	PF-235-00	Rear Bearing Guard	1
68	GF-255-00	Rear Frame Plate	1
69	GF-256-00	Rear Frame Plate Bracket	2
70	PT-312-01	Safety Lid	1
71	BLP-106-00	Decal (Danger Keep Hands and Feet Away)	1
72	PT-316-00	Lid Spring	1
73	PT-313-00	Lid Eyebolt	1
74	PT-321-00	Decal (Goossen Tub)	2
75	PT-320-00	Decal (Caution Cut & Remove Strings)	1
76	PT-300-00	Bale Tub (2-Wire)	1

NA8000ESME
MAINFRAME COMPONENTS

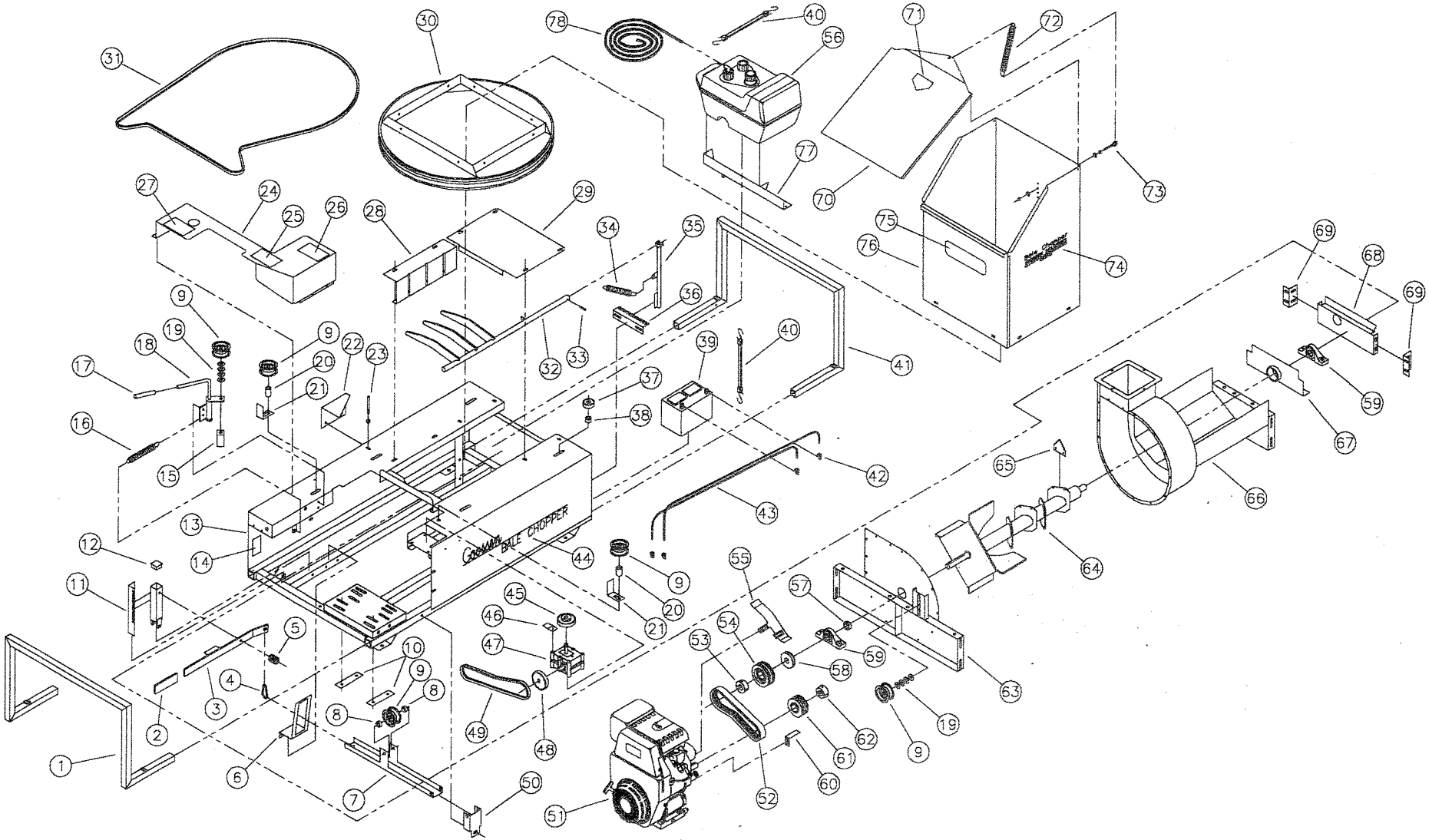


NA8000ESME MAINFRAME COMPONENTS

Ref. No.	Part No.	Description	No. Req'd
1	GF-225	Front Lift Handle	1
2	GF-226	Cover for Engaging Handle	1
3	GF-205	Engaging Handle	1
4	GF-229	Engaging Channel Clip	1
5	GF-206	Spring	1
6	GF-230	Engaging Channel Guide	1
7	GF-203	Engaging Channel	1
8	GF-213	Engaging Channel Spacer	2
9	GF-251	Wide Idler Pulley	1
10	GF-231	Reinforcement Plate	2
11	GF-204	Engaging Handle Stop Assembly	1
12	PF-215	1 1/2" Cap Plug	1
13	GF-500	Mainframe	1
14	GF-524-00	Decal (BCG-4 Serial Number)	1
15	PF-242	Shift Assembly Stop	1
16	PF-211	Spring	1
17	PF-225	Plastic Cover (Shift Assy. Handle)	1
18	GF-218	Shift Assembly	1
19		Flat Washer (1/2")	4
20	PF-213	Idler Spacer	2
21	PF-212	Belt Guide	2
22	GF-217	Tub Belt Shield	1
23	PF-216	Belt Guide	1
24	GF-502-00	Front Belt Shield	1
25	GF-245-00	Decal (Area Around Engine)	1
26	PF-238-00	Decal (Danger Keep Hands and Feet Away)	1
27	GF-247	Decal (Clean With Hose)	1
28	PF-337	7 Finger Grate Guide	1
29	PF-534	Rear Rotor Cover	1
30	PT-301	Tub Base Assembly (2-Wire)	1
31	PT-511	Tub Drive Belt, Blower Models	1
32	GF-628-00	7 Finger Grate	1
33	PF-226	Roll Pin	1
34	PF-211	Spring	1
35	GF-242	Grate Lever	1
36	PF-231	Grate Adjustment Bracket	1
37	PF-219	Tub Base Bearing	4
38	PF-220	Tub Base Bearing Spacer	4

Ref. No.	Part No.	Description	No. Req'd
39	GF-235	Battery	1
40	GF-236	Battery Hold Down Strap	1
41	GF-246	Rear Lift Handle	1
42	GF-232	Battery Cable Terminal End	4
43	GF-237	Battery Cable Set	1
44	PF-243-00	Decal (Goossen Mainframe)	2
45	PF-206	Gear Box Top Sheave (AK32 x 5/8")	1
46	GF-215	Belt Guide	1
47	GF-214	Gear Box (15:1 Ratio)	1
48	GF-306-00	Gear Box Sheave (AK34 x 5/8")	1
49	GF-520-00	Gear Box Belt (4L370)	1
50	GF-212-00	Engaging Channel Swivel	1
51	CSP-135-00	Electric Start Honda Engine (18 hp.)	1
52	GB-223-00	Banded Drive Belt (3/3VX315)	1
53	GB-204-00	Taper Lock Bushing (1610 x 1" 1K)	1
54	GB-503-00	Drive Sheave (3/3V 4.5-1610)	1
55	GB-105-00	Upper Drive Belt Guide	1
57	PB-502-00	Impeller End Spacer	1
58	PB-113-00	Sheave, 3.0 x 1"	1
59	PB-105-00	Pillow Block Bearing	2
60	GB-106-00	Lower Drive Belt Guide	1
61	GB-104-00	Drive Sheave (3/3V 3.15)	1
62	PB-110-00	1210 x 1" Taper Lock Hub	1
63	GB-502-00	Blower Trough Front	1
64	PB-601-00	Even Space (Gas #2388 & PTO#1244 ON)	1
65	PB-109-00	Cutting Knife	32
66	GB500-00	Blower Trough Assembly	1
67	PF-235-00	Rear Bearing Guard	1
68	GF-255-00	Rear Frame Plate	1
69	GF-256-00	Rear Frame Plate Bracket	2
70	PT-312-01	Safety Lid	1
71	BLP-106-00	Decal (Danger Keep Hands and Feet Away)	1
72	PT-316-00	Lid Spring	1
73	PT-313-00	Lid Eyebolt	1
74	PT-321-00	Decal (Goossen Tub)	2
75	PT-320-00	Decal (Caution Cut & Remove Strings)	1
76	PT-300-00	Bale Tub (2-Wire)	1

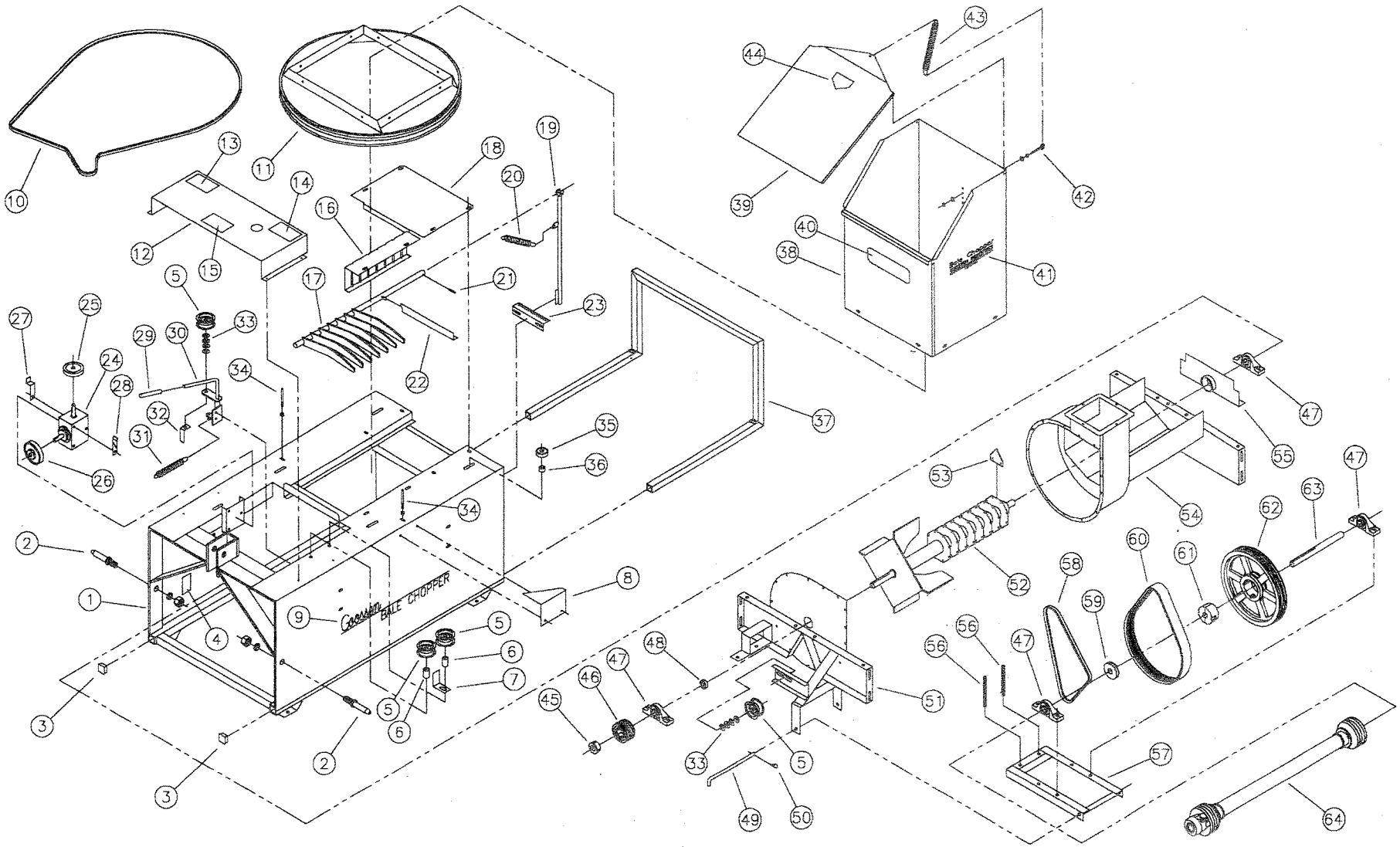
NA8500ESME
MAINFRAME COMPONENTS



NA8500ESME MAINFRAME COMPONENTS

Ref. No.	Part No.	Description	No. Req'd
1	GF-225	Front Lift Handle	1
2	GF-226	Cover for Engaging Handle	1
3	GF-205	Engaging Handle	1
4	GF-229	Engaging Channel Clip	1
5	GF-206	Spring	1
6	GF-230	Engaging Channel Guide	1
7	GF-203	Engaging Channel	1
8	GF-213	Engaging Channel Spacer	2
9	GF-251	Wide Idler Pulley	1
10	GF-231	Reinforcement Plate	2
11	GF-204	Engaging Handle Stop Assembly	1
12	PF-215	1 1/2" Cap Plug	1
13	GF-500	Mainframe	1
14	GF-524-00	Decal (NA8500ESME Serial Number)	1
15	PF-242	Shift Assembly Stop	1
16	PF-211	Spring	1
17	PF-225	Plastic Cover (Shift Assy. Handle)	1
18	GF-218	Shift Assembly	1
19		Flat Washer (1/2")	4
20	PF-213	Idler Spacer	2
21	PF-212	Belt Guide	2
22	GF-217	Tub Belt Shield	1
23	PF-216	Belt Guide	1
24	GF-502-00	Front Belt Shield	1
25	GF-245-00	Decal (Area Around Engine)	1
26	PF-238-00	Decal (Danger Keep Hands and Feet Away)	1
27	GF-247	Decal (Clean With Hose)	1
28	PF-337	7 Finger Grate Guide	1
29	PF-534	Rear Rotor Cover	1
30	PT-301	Tub Base Assembly (2-Wire)	1
31	PT-511	Tub Drive Belt, Blower Models	1
32	GF-528-00	3 Finger Grate	1
33	PF-226	Roll Pin	1
34	PF-211	Spring	1
35	GF-242	Grate Lever	1
36	PF-231	Grate Adjustment Bracket	1
37	PF-219	Tub Base Bearing	4
38	PF-220	Tub Base Bearing Spacer	4
39	GF-235	Battery	1
40	GF-236	Battery Hold Down Strap	1
41	GF-246	Rear Lift Handle	1
42	GF-232	Battery Cable Terminal End	4
43	GF-237	Battery Cable Set	1
44	PF-243-00	Decal (Goossen Mainframe)	2
45	PF-206	Gear Box Top Sheave (AK32 x 5/8")	1
46	GF-215	Belt Guide	1
47	GF-214	Gear Box (15:1 Ratio)	1
48	GF-306-00	Gear Box Sheave (AK34 x 5/8")	1
49	GF-520-00	Gear Box Belt (4L370)	1
50	GF-212-00	Engaging Channel Swivel	1
51	CSP-135-00	Electric Start Honda Engine (18 hp.)	1
52	SVA-191-00	Banded Drive Belt (3/3VX300)	1
53	GB-204-00	Taper Lock Bushing (1610 x 1" 1K)	1
54	GB-504-00	Drive Sheave (3/3V 3.65-1610)	1
55	GB-105-00	Upper Drive Belt Guide	1
57	PB-502-00	Impeller End Spacer	1
58	PB-113-00	Sheave, 3.0 x 1"	1
59	PB-105-00	Pillow Block Bearing	2
60	GB-106-00	Lower Drive Belt Guide	1
61	GB-104-00	Drive Sheave (3/3V 3.15)	1
62	PB-110-00	1210 x 1" Taper Lock Hub	1
63	GB-502-00	Blower Trough Front	1
64	GB-701-00	Impeller/Course Gas Rotor (Gas #2388 & PTO#1244 ON)	1
65	PB-109-00	Cutting Knife	4
66	GB500-00	Blower Trough Assembly	1
67	PF-235-00	Rear Bearing Guard	1
68	GF-255-00	Rear Frame Plate	1
69	GF-256-00	Rear Frame Plate Bracket	2
70	PT-312-01	Safety Lid	1
71	BLP-106-00	Decal (Danger Keep Hands and Feet Away)	1
72	PT-316-00	Lid Spring	1
73	PT-313-00	Lid Eyebolt	1
74	PT-321-00	Decal (Goossen Tub)	2
75	PT-320-00	Decal (Caution Cut & Remove Strings)	1
76	PT-300-00	Bale Tub (2-Wire)	1

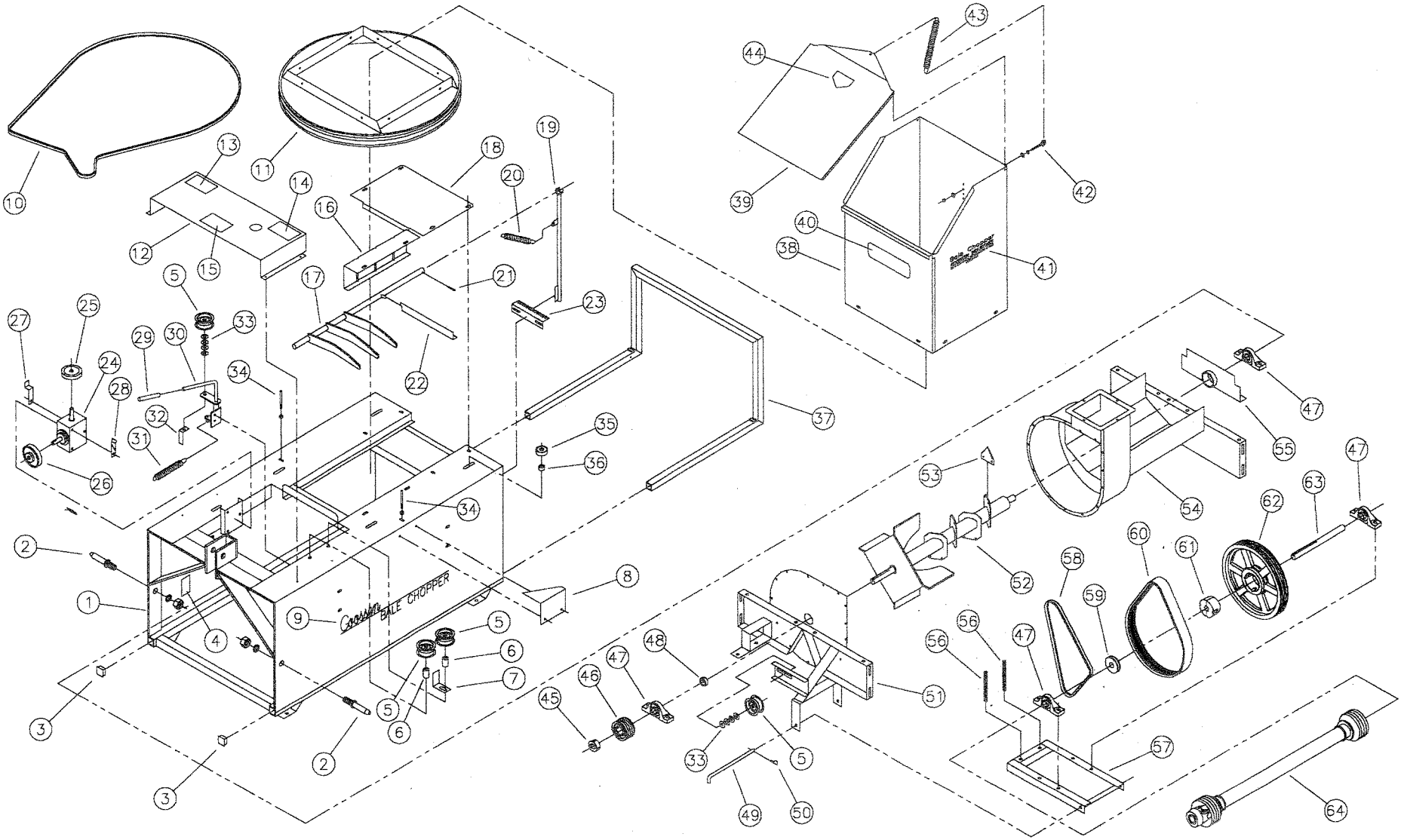
NA1000PTOB
MAINFRAME COMPONENTS



NA1000PTOB MAINFRAME COMPONENTS

Ref. No.	Part No.	Description	No. Req'd
1	PF-500-00	Main Frame	1
2	PF-214-00	3-Point Pin w/Hardware	2
3	PF-215-00	Cap Plug, 1 1/2"	2
4	PF-236-00	Decal (BC-3 Serial Number)	1
5	PB-117-00	Narrow Idler Pulley	4
6	PF-213-00	Idler Pulley Spacer	2
7	PF-212-00	Belt Guide	1
8	PF-209-00	Tub Belt Shield	1
9	PF-243-00	Decal (Goossen Mainframe)	2
10	PT-511-00	Tub Drive Belt Blower Models (A128)	1
11	PT-301-00	Tub Base Assembly (2-String)	1
12	PF-202-00	Front Belt Shield	1
13	PF-238-00	Decal (Caution Keep All Guards)	1
14	GF-247-00	Decal (Clean With Hose)	1
15	PF-239-00	Decal (Caution 540 RPM)	1
16	PF-337-00	7 Finger Grate Guide	1
17	PF-503-00	Adjustable Grate	1
18	PF-534-00	Rear Rotor Cover	1
19	PF-230-00	Grate Lever	1
20	PF-211-00	Spring	1
21	PF-226-00	Roll Pin	1
22	PF-232-00	Grate Frame Bracket	1
23	PF-231-00	Grate Adjustment Bracket	1
24	PF-204-00	Gear Box (2:1 Ratio)	1
25	PF-206-00	Gear Box Top Sheave (AK32 X 5/8)	1
26	PF-305-00	Gear Box Side Sheave (AK46 X 5/8)	1
27	PF-207-00	Belt Guide	1
28	PF-507-00	Belt Guide	1
29	PF-225-00	Shift Handle Assembly Cover	1
30	PF-210-00	Shift Assembly	1
31	PF-211-00	Spring	1
32	PF-242-00	Shift Assembly Stop	1
33	50-WUSS	1/2" USS Flat Washer	4
34	PF-216-00	Belt Guide	2
35	PF-219-00	Tub Base Bearing	4
36	PF-220-00	Tub Base Bearing Spacer	4
37	PF-201-00	Bale Carrier	1
38	PT-300-00	Bale Tub (2-Wire)	1
39	PT-312-01	Safety Lid	1
40	PT-320-00	Decal (Caution Cut & Remove Strings)	1
41	PT-321-00	Decal (Goossen Tub)	1
42	PT-313-00	Lid Eyebolt	1
43	PT-316-00	Lid Spring	1
44	BLP-106-00	Decal (Danger Keep Hands and Feet Away)	1
45	PB-110-00	Taper Lock Bushing (1210 X 1.000" 1K)	1
46	PB-104-00	Rotor Sheave (4-3V 3.15)	1
47	PB-105-00	Pillow Block Bearing	4
48	PB-502-00	Impeller End Spacer	1
49	PB-114-00	Tightener Pin	1
50	PB-115-00	Retainer Clip	1
51	PB-536-00	Blower Trough Front	1
52	PB-601-00	Impeller	1
53	PB-109-00	Cutting Knife	32
54	PB-400-00	Blower Trough Assembly	1
55	PF-235-00	Rear Bearing Guard	1
56	PB-220-00	Adjustment Bolt (6")	2
57	PB-203-00	Tightener Frame	1
58	PF-222-00	Gear Box Drive Belt (4L 420)	1
59	PB-113-00	Sheave (3.0 X 1")	1
60	PB-323-00	Banded Drive Belt (4/3VX500)	1
61	PB-204-00	2517 X 1" Taper Lock Hub	1
62	PB-202-00	Drive Sheave (4-3V14.0)	1
63	PB-112-00	Idler Shaft	1
64	PB-224-00	PTO Shaft (Size 2)	1

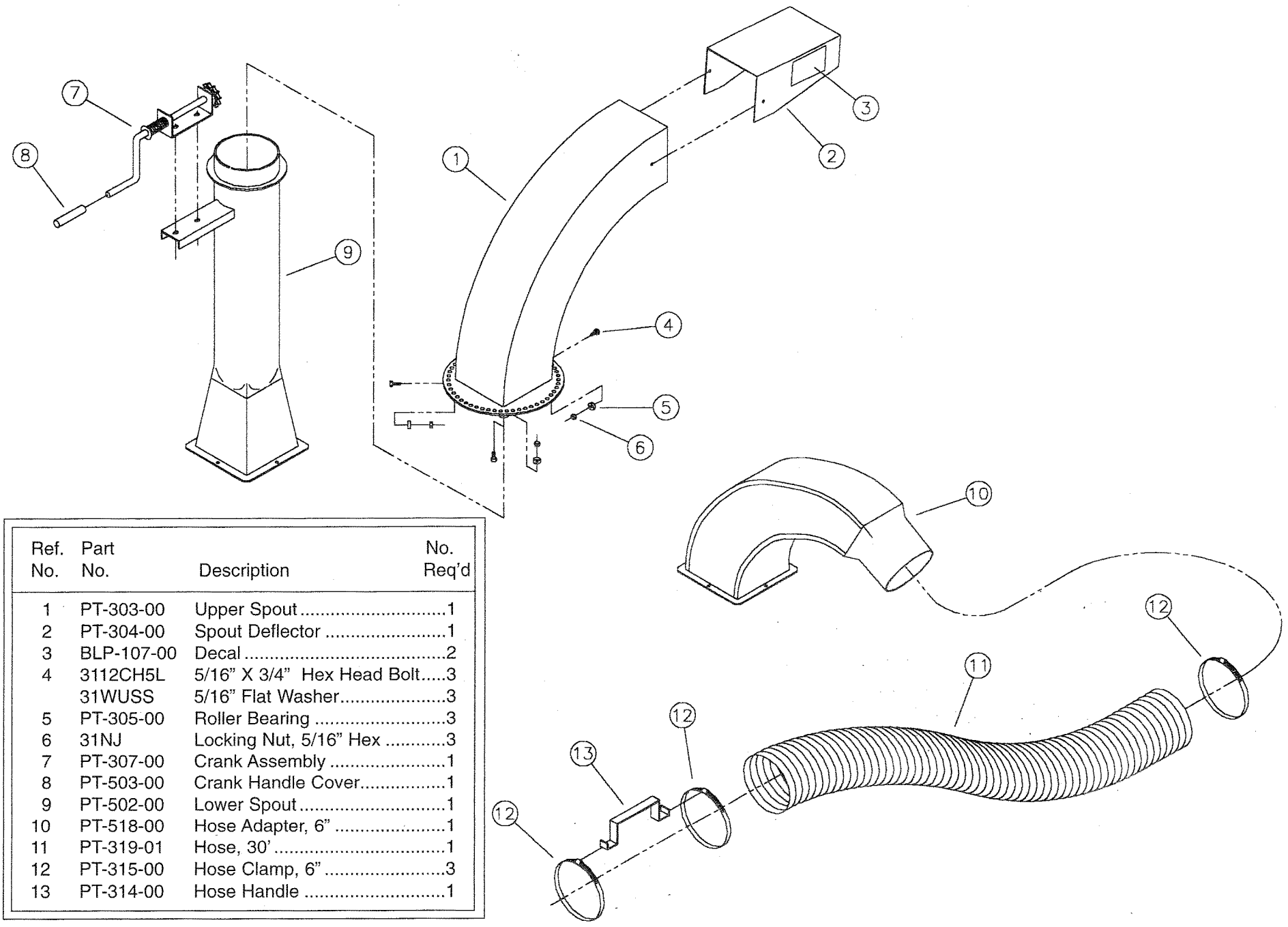
NA1500PTOB
MAINFRAME COMPONENTS



NA1500PTOB MAINFRAME COMPONENTS

Ref. No.	Part No.	Description	No. Req'd
1	PF-500-00	Main Frame	1
2	PF-214-00	3-Point Pin w/Hardware	2
3	PF-215-00	Cap Plug, 1 1/2"	2
4	PF-236-00	Decal (NA1500PTOB Serial Number)	1
5	PB-117-00	Narrow Idler Pulley	4
6	PF-213-00	Idler Pulley Spacer	2
7	PF-212-00	Belt Guide	1
8	PF-209-00	Tub Belt Shield	1
9	PF-243-00	Decal (Goossen Mainframe)	2
10	PT-511-00	Tub Drive Belt Blower Models (A128)	1
11	PT-301-00	Tub Base Assembly (2-String)	1
12	PF-202-00	Front Belt Shield	1
13	PF-238-00	Decal (Caution Keep All Guards)	1
14	GF-247-00	Decal (Clean With Hose)	1
15	PF-239-00	Decal (Caution 540 RPM)	1
16	PF-337-00	7 Finger Grate Guide	1
17	PF-403-00	Adjustable Grate	1
18	PF-534-00	Rear Rotor Cover	1
19	PF-230-00	Grate Lever	1
20	PF-211-00	Spring	1
21	PF-226-00	Roll Pin	1
22	PF-232-00	Grate Frame Bracket	1
23	PF-231-00	Grate Adjustment Bracket	1
24	PF-204-00	Gear Box (2:1 Ratio)	1
25	PF-206-00	Gear Box Top Sheave (AK32 X 5/8)	1
26	PF-305-00	Gear Box Side Sheave (AK46 X 5/8)	1
27	PF-207-00	Belt Guide	1
28	PF-507-00	Belt Guide	1
29	PF-225-00	Shift Handle Assembly Cover	1
30	PF-210-00	Shift Assembly	1
31	PF-211-00	Spring	1
32	PF-242-00	Shift Assembly Stop	1
33	50-WUSS	1/2" USS Flat Washer	4
34	PF-216-00	Belt Guide	2
35	PF-219-00	Tub Base Bearing	4
36	PF-220-00	Tub Base Bearing Spacer	4
37	PF-201-00	Bale Carrier	1
38	PT-300-00	Bale Tub (2-Wire)	1
39	PT-312-01	Safety Lid	1
40	PT-320-00	Decal (Caution Cut & Remove Strings)	1
41	PT-321-00	Decal (Goossen Tub)	1
42	PT-313-00	Lid Eyebolt	1
43	PT-316-00	Lid Spring	1
44	BLP-106-00	Decal (Danger Keep Hands and Feet Away)	1
45	PB-110-00	Taper Lock Bushing (1210 X 1.000" 1K)	1
46	PB-104-00	Rotor Sheave (4-3V 3.15)	1
47	PB-105-00	Pillow Block Bearing	4
48	PB-502-00	Impeller End Spacer	1
49	PB-114-00	Tightener Pin	1
50	PB-115-00	Retainer Clip	1
51	PB-536-00	Blower Trough Front	1
52	PB-701-00	Impeller/Course PTO Rotor	1
53	PB-109-00	Cutting Knife	4
54	PB-400-00	Blower Trough Assembly	1
55	PF-235-00	Rear Bearing Guard	1
56	PB-220-00	Adjustment Bolt (6")	1
57	PB-203-00	Tightener Frame	1
58	PF-222-00	Gear Box Drive Belt (4L 420)	1
59	PB-113-00	Sheave (3.0 X 1")	1
60	PB-323-00	Banded Drive Belt (4/3VX500)	1
61	PB-204-00	2517 X 1" Taper Lock Hub	1
62	PB-202-00	Drive Sheave (4-3V14.0)	1
63	PB-112-00	Idler Shaft	1
64	PB-224-00	PTO Shaft (Size 2)	1

BALE CHOPPER SPOUTS



Ref. No.	Part No.	Description	No. Req'd
1	PT-303-00	Upper Spout	1
2	PT-304-00	Spout Deflector	1
3	BLP-107-00	Decal	2
4	3112CH5L	5/16" X 3/4" Hex Head Bolt	3
	31WUSS	5/16" Flat Washer	3
5	PT-305-00	Roller Bearing	3
6	31NJ	Locking Nut, 5/16" Hex	3
7	PT-307-00	Crank Assembly	1
8	PT-503-00	Crank Handle Cover	1
9	PT-502-00	Lower Spout	1
10	PT-518-00	Hose Adapter, 6"	1
11	PT-319-01	Hose, 30'	1
12	PT-315-00	Hose Clamp, 6"	3
13	PT-314-00	Hose Handle	1

BALE CHOPPER OPTIONS AND ACCESSORIES

Part No.	Description	No. Req'd
GF-404	Fire Extinguisher (Gas Tubs Only)	1
PT-504	Directional Spout Extension	1
PT-308	Bale Tub (3-Wire)	1
PT-306	Safety Lid (3-Wire)	1
PT-309	Tub Base Assy (3-Wire)	1
PT-330	6" Hose Splice	1
NA1240WLKT	Gas Chopper Wheel Kit	1
GP-123	ESEC to ESME Conversion	1
GF-409	Honda Spark Plug Wrench	1

Not illustrated, order by description.

DECALS / OWNER'S MANUALS

Ref. No.	Part No.	Description	No. Req'd
GF-224		Gas Serial Number Decal	1
PF-236		PTO Serial Number Decal	1
GF-245		Caution (Engine Area)	2
PF-238		Caution (Safety Shields)	2
PT-321		Bale Chopper (Bale Tub)	2
PT-320		Caution (Cut Strings)	1
PF-239		Caution (RPM Label)	1
GF-247		Caution (Clean with Hose)	1
GF-408		Caution (Do Not Start Engine)	1
PF-243		Goossen Mainframe	2
PF-237		Warning Rotating Knives	1
BD-730		Serial No. Decal (BDC-1)	1
BD-731		Keep Feet and Hands Clear Decal	1
BLP-107-00		Chute Decal	1
GP-152-00		Chopper Owner's Manual	1
GF-224		NA5000PSME - SER #	1
GF-524		NA6000ESME - SER #	1
GF-804		NA8000ESME - SER #	1
GF-805		NA8500ESME - SER #	1
PF-236		NA1000PTOB - SER #	1
LPF-236-00		NA1500PTOB - SER #	1

WARRANTY

The Goossen Bale Chopper is warranted against defects in workmanship and materials for one year from purchase date.

Goossen Industries will repair or replace, at our option, any part which our examination shows to be defective. Warranty is limited to parts only. Labor and transportation charges for parts submitted under this warranty will be paid by the user.

No product or parts may be returned for warranty consideration without prior written approval from Goossen Industries.

This warranty does not apply to parts subjected to misuse, abuse, alteration, improper or inadequate maintenance, or normal wear.

Gasoline engines are not covered under this warranty. Refer to the manufacturer's warranty included for specific warranty information.

Goossen Industries, its agents or representatives, make or imply no other warranties.