



# BALE KING 3115



# **Bale Processor**

# **Operator's & Parts Manual**

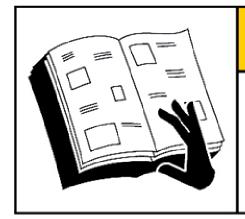
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### **Bridgeview Manufacturing Inc.**

P.O. Box 4 Gerald, Saskatchewan, Canada S0A 1B0 Phone: 1-306-745-2711 Fax: 1-306-745-3364 Email: bmi@sasktel.net www.bridgeviewmanufacturing.com **Your Authorized Dealer** 

**Your Serial Number** 

The Serial Number is located near the front of the left hand wall of the tub.



# **A**WARNING

Failure to read and understand operator's manual & all safety signs could result in serious injury.

Manual must remain with machine.



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### **INTRODUCTION**

Thank you for purchasing a **Bale King** Bale processor. With the proper operation and service as outlined in this manual, the Bale King will provide you with years of trouble free operation.

This is a complete safety, operation and parts manual for the Bale King 3115. The manual covers in detail how to safely and effectively use your new processor. The procedures outlined in this manual should be followed to ensure safe operation and longevity of your machine. The parts manual covers all parts you may need to order in case of accident or breakdown. Please read completely through this manual before beginning operation of your new machine.

### SAFETY PRECAUTIONS

The following safety precautions MUST be followed to ensure safe operation of the Bale King Bale processor.

- ALWAYS turn OFF the tractor when leaving the operating platform.
- **DO NOT** stand in front of the discharge chute while the machine is running.
- **DO NOT** walk or move under the bale forks when they are in the upward position, unless the cylinder safety lock is in place.
- **DO NOT** enter the machine while in operation.
- **DO NOT** clean machine while in operation.
- **DO NOT** stick any device into the machine to clear debris while the machine is in operation.
- ALWAYS turn off the machine when cleaning the machine, removing twine, or hooking/unhooking the machine
- **ALWAYS** use safety chain when towing the machine on the highway.
- **DO NOT** operate if any part of the **PTO safety shielding** is missing or is not secured.





### SAFETY DECALS

There are several safety decals on the Bale King to provide warning about dangerous areas. They are located in the following locations:





Danger: Do not stand in front of deflector when machine is operating

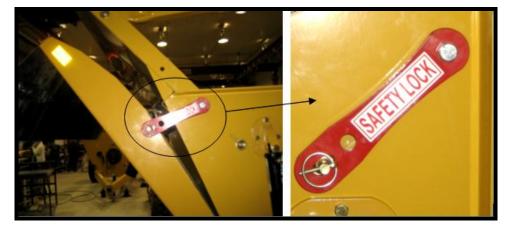




Danger: Stand clear of lift area; do not walk under forks unless safety locks are installed



Danger: PTO

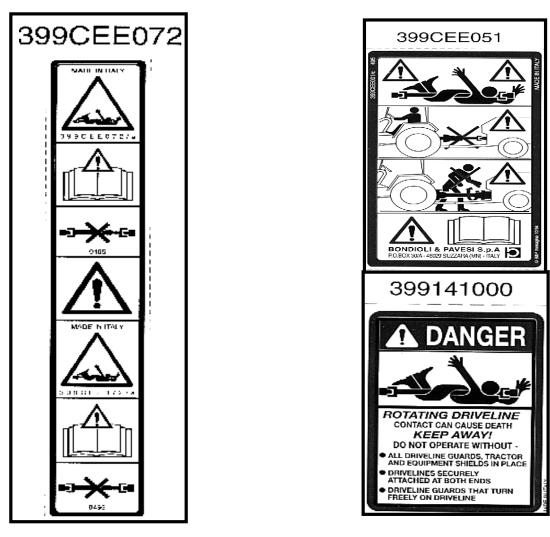


Deflector Safety Lock: Unlock for Operation, Lock for Transport and Storage



### **POWER TAKE-OFF**

The operator must obey all safety labels and must maintain the proper shielding. A high percentage of drive-line injuries occur when safety shielding is missing or not functioning properly.



Do not operate the machine without all driveline, tractor, and implement shields in place. Drive-line shields must turn freely on the driveshaft.

Before operating the machine, be sure drive-lines are attached **securely** to the tractor and to the implement. Check the tractor yoke.

Keep operators and bystanders away from all moving parts.

NOTE: Contact with a rotating drive-line can cause serious injury or death.

### PTO USE AND MAINTENANCE

### Safety

Shut off the tractor engine and remove the key before doing any maintenance on the machine.

NOTE: Use genuine Weasler parts when replacing any worn or damaged PTO components.

### Length

Confirm the minimum and maximum working lengths of the drive-line. The telescoping tubes must overlap at least 1/3 of their length when in

use. The PTO is designed to be used with a drawbar length of 16" from the end of the PTO shaft. Adjust your tractor accordingly.

### Shielding

Be sure that the shielding is not damaged and rotates freely on the drive shaft.

### **Working Angles**

Constant Velocity joints can operate up to 80 degrees for short periods of time. Do not operate for long periods on sharp angles.

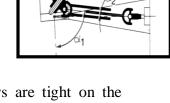
### Attachment

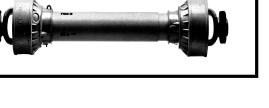
Be sure the drive-line is properly attached and all bolts and screws are tight on the implement input shaft and on the tractor PTO shaft.

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### Storage

When not in use, cover or protect the drive shaft from the weather. When removed from the machine store both halves together to prevent damage. Check all components for proper function and lubrication before use.

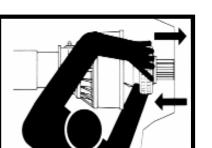






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# BEFORE ATTEMPTING ANY REPAIR PROCEDURES, ALWAYS USE APPROPRIATE EQUIPMENT SUCH AS SAFETY GLASSES, SAFETY SHOES, AND GLOVES.



### Shield Removal

To remove the shield, pop out the red snap, then rotate the

guard on the bearing to line up the three tabs with the openings and pull it off away from the knuckle joint.

Remove the nylon bearing from the shaft by spreading it open.

### Shield Assembly

Be sure to lube the groove in the inner yokes where the shield bearing rides. Re-install shields in the above directions in reverse order.

### HORSEPOWER RATING

The Bale King Bale processor is designed to use a minimum of **75 HP**. The drive shaft is shear bolt protected. The machine must be operated at **1000 PTO RPM**.

**NOTE:** Spread yokes and twisted drive shafts are signs of overload, not a manufacturer's defect and therefore not covered by warranty.







### PTO SHAFT SHEAR-BOLT CLUTCH

All new Bale King Processors are equipped with a shear bolt clutch located at the machine end of the PTO shaft. The shear-bolt is **3/8'' x 2'' grade 5.** *THIS SHEAR BOLT MUST BE USED*. Any other size will damage the shear assembly.

If your shear bolt is shearing excessively you may be

over-loading the machine. If this occurs raise the grate assembly to make the machine

less aggressive. Also roll the bale more slowly.

NOTE: Always ensure that your machine is running at 1000 PTO RPM.

### PTO HOOKUP

Your Bale King Processor has a PTO shaft which is splined on both ends. The machine end uses a 1 3/4-20 spline with wedge lock bolt. Install on the machine and tighten the wedge bolt. The bolt should be torqued to **160 ft/lbs.** and re-torqued after 8 hrs. of use.

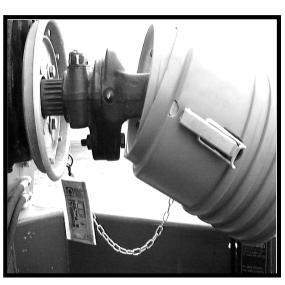
The tractor end comes standard with a 1 3/8-21 spline quick detach constant velocity joint. An optional 1 3/4-20 spline yoke is available through your Bale King dealer.

**DO NOT** operate the machine using an adaptor from 1-3/4" to 1-3/8". Warranty will not cover a drive shaft failure if this occurs.

**ALWAYS** ensure that the PTO shaft is attached securely to the tractor. When the processor is not hooked to the tractor store the shaft on the PTO holder.

**DO NOT** transport the processor without securing the PTO shaft. It may bounce off the holder and be damaged.

**ALWAYS** ensure that the drawbar is adjusted to **16**" from the end of the tractor PTO shaft to the center of the hole in the drawbar.





### **PTO HOLDER**

A PTO shaft holder is standard with your new Bale King 3115 for safe storage of the shaft when the processor is not in use.

When unbooking the PTO shaft from the tractor, lift the free end of the PTO shaft up and place it in the Uholder provided. This will keep the shaft away from the hitch when hooking the tractor to the machine and keep the clear from snow and ice.



### LUBRICATION AND MAINTENANCE

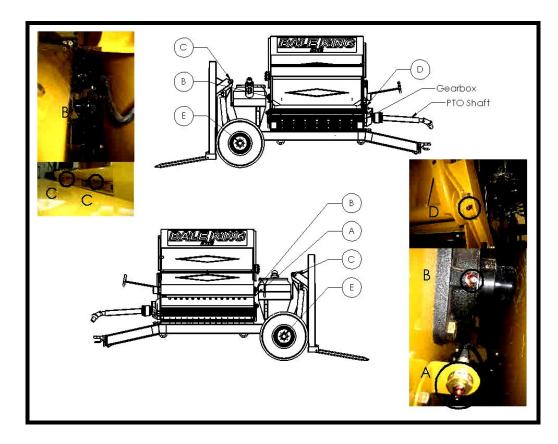
	Location	Timeline
Α	Rotor Bearing	
В	Agitator Bearings (x 2)	250 Bales (or 8 hours)
С	Bale Fork Pivot (x 2)	
D	Main Deflector Pivot	
Ε	Wheel Hubs (x 2)	Seasonally (or 300 hours)

Lubricating the Bale King Bale processor should be done on a regular basis.

Wheel bearings should be inspected periodically for adjustment and lubricated annually. Inspect more often for extensive traveling.

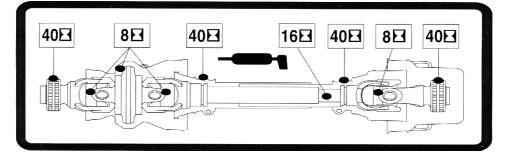
To tighten the wheel bearings, lift up each wheel (one at a time) until the wheel spins freely. Remove dust cap and the cotter pin which retains the castle nut. Tighten the nut until the wheel will rotate approximately two turns when given a firm spin. Align castle nut to closest hole and insert the cotter pin. Re-install the dust cap and pack full of grease.





### PTO / DRIVELINE

Frequent lubrication is required. Grease the driveline parts as required on the chart.



After Storage for long periods of time, lubricate and check the function of every driveline component before operating.

**NOTE:** Check to see that all locations are lubricated as per chart. Failure to grease all the joints will void warranty.



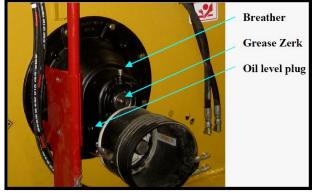
### GEAR BOX

There is one grease zerk on the front of the gear box. Apply 2-3 pumps of good quality grease every 8 hours (or 250 bales).

The gear box requires GL5 80W90 gear oil. The oil should be filled to the level plug and checked on a regular basis.

### Oil change interval:

- 25 hours after first use
- 50 hours after first use
- Every 300 hours or yearly (Which ever comes first)



### TIRE INFLATION & RATING

Check for proper tire inflation	24 PSI
Replace any damaged tires	16.5L-16.1 6 ply
Check and tighten wheel bolts on a regular basis	125 ft-lb

- Proper tire inflation will help alleviate a puncture problem when pulling and operating the machine on rough terrain.
- Maximum speed for agricultural tires is 25 mph or 40km/h.

NOTE: Warranty does not cover damaged rims

and hubs due to loose wheel bolts. Tire warranty is covered by the tire manufacturer.

**NOTE:** When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly.



DO Not Exceed 40 Km/h (25 MPH). **BALE KING** uses implement tires & hubs. Transporting this machine at higher speeds is unsafe.





### **IMPLEMENT TONGUE**

The new adjustable hitch on the Bale King features a Caste single tongue with hammer strap insert. This allows the use with tractors equipped with the hammer strap or single drawbar. This allows the machine to move over rough terrain independently without bending or breaking the hitch pin.

Adjust the hitch to level the machine. A level machine helps keep the bale in the center of the processing area.

Always connect safety chain when transporting on public roads.

### HYDRAULIC & ELECTRICAL HOOKUP

There are two sets of hydraulics required to operate the Bale King 3115. The pairs of hoses are marked with different coloured sleeves for ease of hook-up:

**Red** sleeve hoses operate the agitators which rotates the bale **Blue** sleeve hoses operate lifting fork, main deflector, and grain tank auger

The long and short sleeves indicate which of the hoses is the primary one (long sleeve turns agitators clockwise, back forks and deflector "UP", and turns grain tank auger.

There are also two electrical plugs coming off of the machine. One is for running the lights and can be plugged into the tractor's 7-pin trailer plug. The other is for operating the diverter valve, which switches power between the auger, lifting forks, and main deflector. This box is mounted in the tractor, and wired to a 12 VDC keyed circuit (see diagram). Run the 4-pin plug end down to the hitch to connect with the machine plug.

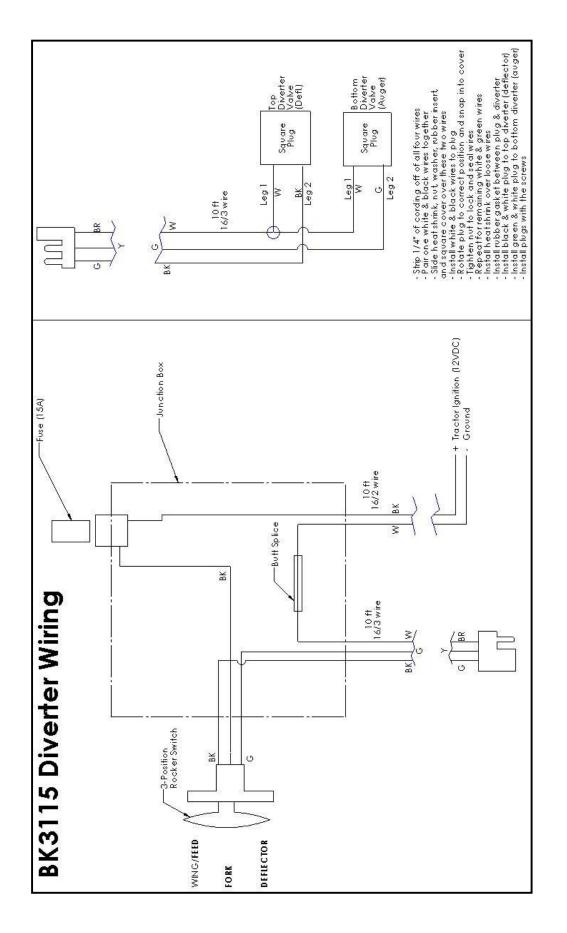








**NOTE:** Always set the hydraulic flow rate low and adjust until desired speed is reached.







### **GRAIN TANK**

Grain tank capacity is 32 cu.ft. or approximately 30 bushels. A hydraulically driven auger elevates the grain and drops it on the windrow.

A flow control valve lets you adjust the speed of the auger so you can meter the grain deposited on the windrow or into the bunk. The auger is controlled with the top ("Feed") position of the 3-way switch shown earlier.





A door is provided at the bottom of the tank for clean out if required.

The tank is filled through the lid at the top. There is a handle on the right side.



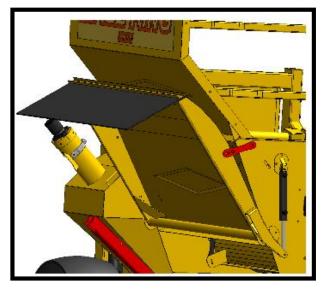


### DEFLECTORS

### MAIN DEFLECTOR

Your new Bale King is equipped with a hydraulic deflector, which is controlled with the bottom ("Deflector") position of the 3-way switch shown earlier. This deflector is used to change the output distance and distribution of the processed material.

For transportation and storage, always ensure that the safety lock is installed.



### **BOTTOM DEFLECTOR**

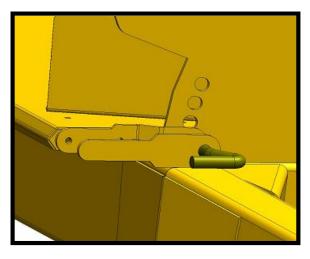
Located at the bottom of the discharge opening is a deflector which can be adjusted up or down to suit your feeding and bedding needs. It adjusts with a handle and a spring loaded pin on the front of the Bale King.

### SETTINGS

**Bedding** - To bed an open area or corral, raise the main deflector to the upper position to allow straw to blow out evenly. The bottom deflector can be adjusted part way up or down to aid in distribution.

**Windrowing** - To window feed along the ground simply lower the main deflector to the desired height and adjust the bottom deflector to the lowest position.

**Bunk Feeding** - Adjust the main deflector to clear the bunk and raise the bottom deflector up to throw the material up against the deflector. Drive along the bunk and process.



**WARNING:** Do not walk or stand in front of the discharge chute while processing. Never direct discharge chute at cattle while processing!



### **REAR FORKS**

The lifting action of the rear forks is controlled hydraulically through the center ("Fork") position of the 3-way switch in the control box shown earlier.

To install the 3x3 bale tine, remove the cotter key on the hinge pin at the bottom of the main forks. Slide the tine into the opening at the bottom of the forks, align holes and insert the hinge pin.

Install the cotter key in the pin and spread

the cotter key to ensure the hinge pin does not accidentally fall out.

There is an optional tine kit for small bales available from your Bale King dealer.

When working underneath forks, or for road transportation, always make sure that the forks are all the way up, and that the cylinder locks are in place.



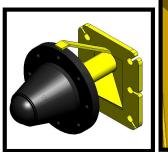


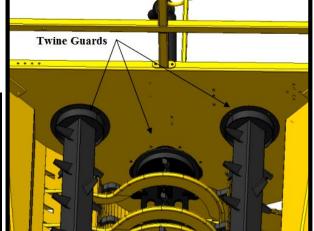
### TWINE GUARDS

The main rotor and the beaters are equipped with removable twine guards. The guards are mounted to the front and rear wall of the machine. The twine guards are bolted and need

to be removed if you need to remove or tighten the bolts on the bearings or the hydraulic motors.

The twine guard will





also help keep twines away from the wheel bearing seal. Remove twine any time you notice it on the axle.



### LOADING BALES

# When loading bales into your Bale King Bale processor, the following procedure should be followed:

- Position the tractor and the Bale King so as to be lined up to back straight into the row of bales.
- When close to the bale, lower the forks totally (you will feel a slight vibration as the forks bottom out against the frame).
- Back completely under the first bale.
- Allow the tractor to roll forward while lifting the bale because the bale fork moves away from the machine while loading. If you are loading from the same row you can dump the bale into the machine and back straight back for the second bale. If you are going to a different stack for the second bale only raise the first bale enough to clear the ground. Move to the next row and align the machine to the bale before dumping the bale into the tub. This gives you good visibility to line up to the second bale.
- Once you have the first bale in the tub and the second bale on the forks, raise the bale fork about <sup>1</sup>/<sub>4</sub> of the way up. You now can transport to your feeding area to begin processing.

NOTE: Carry the bale as low as possible so that there is less stress on the cylinder shafts. Carrying the bale high may bend hydraulic cylinder shafts.





### HOOP GRATE ADJUSTMENT

There are 7 adjustment settings for the hoop grate on the Bale King Bale processor. These settings determine the rate of feed of the bale you are processing and the how fine the cut will be.

**Position #1:** Highest grate setting for finest cut and slowest rate of feed. Used for tough processing feeds such as silage bales and some types of hay.

**Positions #2 - #6:** Normal operating range. Machine gets more aggressive as grate is lowered.

**Position #7:** Lowest grate position. Most aggressive, fastest rate of feed.



The Bale King should be adjusted according to various bale conditions to achieve a rate of feed of approximately 1.5 to 2 minutes\*. Light brittle material such as wheat straw may allow faster processing while tough stringy material such as slough hay, green feed, or flax will require slower processing. Hoop grate adjustment should be checked periodically.

**NOTE:** *Processing a bale more rapidly than this may cause unnecessary machine deterioration.* 

**NOTE:** Upper grate position should have approximately -1/4" flail protrusion. Lower grate position should allow 1-1/4" flail protrusion. Contact your Bale King dealer if this can't be achieved.

The grate assembly can be removed from the machine by removing the linkage bolts and the 3/8" bolts on the opposite side. The grate will lift out the top.

### **ROTOR OPERATION**

To engage the rotor for processing of a bale, be sure the PTO shaft is properly connected to the tractor. **Tractor must be at idle speed when engaging the PTO**. After the PTO has been fully engaged, increase PTO speed until it has reached 1000 RPM. Running the



processor at any speed less than 1000 PTO RPM may result in the flails springing back against the rotor after they have come in contact with the bale. This "backslap" may cause flails to fatigue and cause excessive vibration which may cause bearing failure. Bales may be dumped into the tub while the rotor is stopped or while it is running.

### AGITATORS

The Bale King is equipped with a flow divider/combiner and two hydraulic motors for turning the bale using the agitators.

Once the main rotor is turning at full speed the bale can be turned in either direction to begin processing. The faster the bale is turned in either direction, the faster it will be processed.



It may be necessary to change direction of the bale when loose debris builds on either side of the bale chamber. This will remove the loose debris preventing spillage from the machine.

This is especially true when processing soft core bales. By reversing direction regularly, soft core bales will process more evenly.

When the first bale has been processed, it is common practice to leave the rotor turning at full speed when loading the second bale into the bale chamber from the rear forks.

If the tractor has a flow control, start at a low rate. Turning bales too fast can result in rotor overloading resulting in flail backslap which in turn causes flail and bushing damage.

### **TWINE REMOVAL**

Before attempting the removal of twine from the main rotor, be sure the machine is stopped and the tractor shut off and placed in park. Twines can then be removed with the use of the supplied knife (with handle) or other knife. An electric



device is available from some suppliers which melts through the twine and allows it to be pulled off.



It is not allowed to burn the twine from the rotor as this has several adverse effects:

- It may take the temper out of the steel, rendering it weaker.

- Loose straw and hay remaining in the machine may ignite causing a fire in the processor.

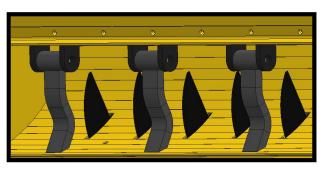
- Excessive buildup of melted plastic.

- Dry out bushings causing them to wear prematurely.

**NOTE:** Bridgeview Manufacturing Inc. VOIDS warranty if twine burning occurs.

### **OPTIONAL FINE CHOP KIT**

The Bale King processors have an optional fine chop knife kit available to go into the lower tub area. This option is available if you require a shorter cut on the material which you are processing such as slough hay and silage bales.



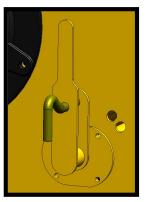
It is recommended that the knives be lowered when bedding straw as it will affect your spread pattern. Adjust the machine as needed. There are two engaged settings for the fine chop, depending on how fine you wish to cut the material. These settings are made using the handle in the front bottom right corner.

### FLAIL & BUSHING REPLACEMENT

Flail replacement is accomplished by removing the 4-3/4"x3/4" bolt holding the flail to the rotor. The flail is then lifted away from the rotor. The bushing can now be removed by using slight pressure to push it out of the flail. Inspect the bolt, bushing, and flail for wear. If wear is excessive, replace with new parts.

Bridgeview Manufacturing Inc. recommends when changing flails to

change in pairs (opposite each other). Processing bales with broken flails causes the rotor to be out of balance creating excessive vibration may cause machine deterioration.







### CYLINDER MAINTENANCE

The hydraulic cylinders are easily removed for repair or maintenance simply:

1. Lowering the fork to the down position and unhooking the hydraulic lines.

**NOTE:** Make sure there is no pressure on the lines and mark the lines as to their placement so there will be no confusion when it comes time to re-install the cylinders.

2. Removing the cotter pins closest to the frame of the machine forks and sliding out the cylinder pins.

3. To re-install, reverse the removal procedure.







NOTE: Always cover exposed cylinder shafts with grease to avoid rusting on shafts if unit is not used for extended periods of time. Rusted Cylinder shafts are not covered by warranty.





### **TROUBLE SHOOTING GUIDE**

PROBLEM	POSSIBLE CAUSE	REMEDY	
	Engaging PTO at high engine speed or too quickly	Idle tractor to engage PTO then bring up to full operating speed / feather PTO lever into position.	
	Excessive twine wrapped on rotor causing flail movement to be restricted	Cut twine off rotor	
Excessive main shear bolt breakage	Broken flails causing rotor to be out of balance	Replace broken flails (in pairs opposite each other)	
snear bon breakage	Overloading rotor	<ul> <li>Set hoops to less aggressive position</li> <li>Slow rotation of bale</li> <li>Change direction of bale rotation</li> </ul>	
	Operating machine at less than 1000RPM PTO speed	Operate machine at rated 1000RPM PTO speed	
	Incorrect shear bolt used Excessive twine wrapped round rotor restricting full flail movement Broken or missing flails	Use correct shear bolt Remove twine from rotor Replace broken or missing	
		flails in pairs opposite each other)	
Excessive vibration while processing bales	Hoops set in a position too aggressive for the type of material being processed causing an overload	Adjust hoops to a less aggressive position	
	Rotating bale too fast causing rotor overload	Slow rotation of bale	
	Operating machine at less than 1000 PTO speed	1000 PTO speed	
	Rotor bearing failure Excessive loose material in tub	Replace failed parts Reverse direction of bale	
Agitators stopping	causing beater to jam	rotation Turn bale more slowly	
	Tractor relief pressure set too low	Set tractor relief pressure to at least 2500psi	
A single agitator	Mechanical flow valve not functioning correctly	Contact your dealer for repairs	
stopping	Coupler between motor and agitator broken	Replace broken parts	



## FEATURES & SPECIFICATIONS

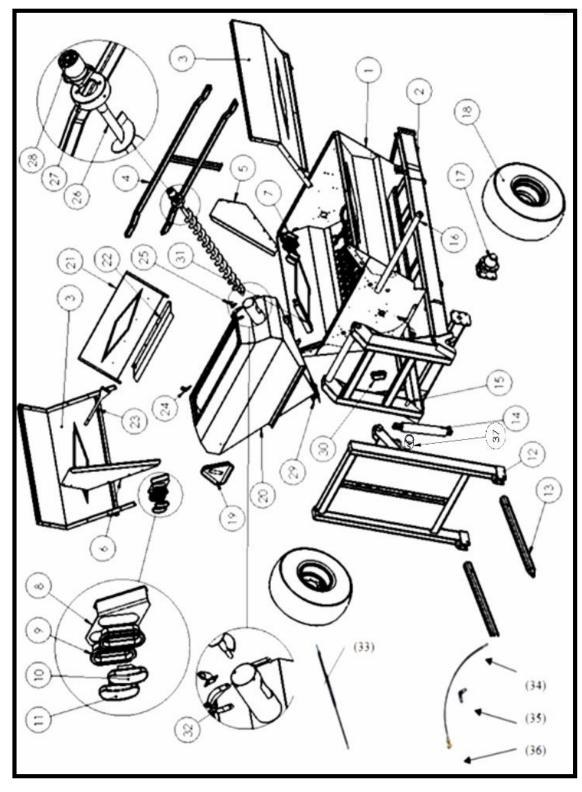
### **Dimensions:**

Dimensions:	
Overall Weight (empty)	4800 lb
Drawbar Weight (empty)	1100 lb
Overall Height (Forks Up)	128"
Overall Height (Forks Down)	111"
Overall Length (Forks Up)	222"
Overall Length (Forks Down)	234"
Overall Length (Tines Removed)	191"
Overall Width (Deflector Up)	113"
Overall Width (Deflector Down)	131"
Tread Width (Centers)	78"
Tub Opening	80" x 87"
Rotor Extended Tip Diameter	27"
Discharge Opening	10-1/2" x 70" (min)
Discharge Opennig	16" x 70" (max)
Crain Touls Consoits	
Grain Tank Capacity	30 bushel
Heavy Duty Reinforced Frame and Axle Assembly	
Main Frame	4x8 Tubing
Frame Width	44-1/2"
Heavy Duty Square Jack	5000 lb
Heavy Duty Fork Frame	3x6 Tubing
Bale Fork Width (Centers)	49"
Adjustable Hitch Height	4 settings at 1-1/2" intervals
Spring Lock Lever on Grate and Deflector Adjuste	rs
Dual Hydraulic Lift Cylinders	3 x 20 x 1-1/2"
Deflector Cylinder	1-1/2 x 8 x 3/4"
Tire Size (Diamond Tread)	16.5L x 16.1 6 ply
Tire Inflation	24 psi
Wheel Torque	125 ft-lb
Minimum Horse Power Requirements	75 HP
Required Number of Hydraulic Remotes	2
Rated PTO RPM	1000 RPM
Flail Tip Speed at 1000 RPM	7000 FPM
Number of Flails	30
Flail Size (with oil-impregnated bushings)	3/4 x 1-1/2 x 7"
Rotor Shaft	1-15/16" Bearings
Agitator Shaft	1-3/4" Bearings
PTO Shaft	Weasler: Cat. 6, 80deg C.V.
Shear Bolt	3/8" x 2" Gr. 5
Gearbox Oil	GL5 80W90



### PARTS MANUAL

### **REAR END COMPONENTS**





### **REAR END COMPONENTS PARTS LIST**

ITEM NO	ITEM ID	DESCRIPTION	QTY.
1	N/A	Main Frame	2
2	N/A	Tub Assembly	1
3	22705	Top Wing	2
Not Shown	11816	3/8" x 3/4" NC Bolt	6
Not Shown	10271	3/8" NC Serrated Flange Nut	6
Not Shown	20058	1/2" x 1 1/2" NC Bolt	4
Not Shown	10322	1/2" x 2" NC Bolt	4
Not Shown	11668	1/2" Flat Washer	8
Not Shown	10273	1/2" Serrated Flange Nut	8
4	22704	Front Rack	1
Not Shown	10824	1/2" x 1" NC Bolt	2
Not Shown	11782	1/2" x 3 1/4" NC Bolt	4
Not Shown	11668	1/2" Flat Washer	4
Not Shown	10273	1/2" Serrated Flange Nut	6
5	22702	Right Wing Gusset	1
6	22703	Left Wing Gusset	1
Not Shown	20058	1/2" x 1 1/2" NC Bolt	6
Not Shown	11668	1/2" Flat Washer	6
Not Shown	10273	1/2" Serrated Flange Nut	6
7	22718	Right Light Bracket	1
8	22717	Left Light Bracket	1
9	21723	Light Grommet	4
10	21721	Red LED Light	2
11	21722	Amber LED Light	2
12	22670	Back Fork Frame	1
13	11144	Fork Tine	2
Not Shown	10031	Headed Pin	2
Not Shown	10072	3/16 x 1-1/2" Cotter Pin	2
14	17444	Fork Hydraulic Cylinder	2
Not Shown	17609	Seal Kit for Hydraulic Cylinder	2
15	22190	Upper Cylinder Pin	2
Not Shown	22291	Lower Cylinder Pin	2
Not Shown	10072	3/16" x 1-1/2" Cotter Pin	8
16	10435	Fork Pivot Pipe	1
Not Shown	10504	3" Rubber Cap	2
Not Shown	10280	1/4" Grease Zerk	2
Not Shown	15397	1/2" x 3-3/4" NC Bolt	1
Not Shown	10241	1/2" NC Locknut	1
17		Hub Assembly	2



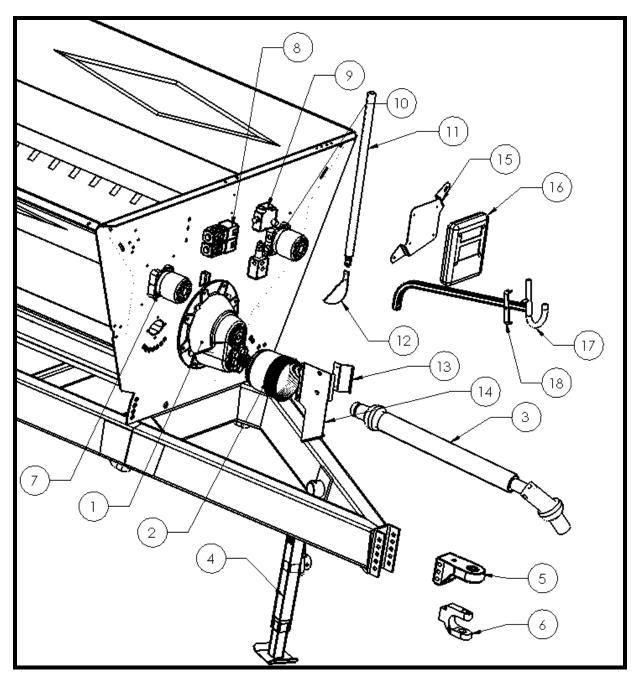
Not Shown	13800	Bolt 3/4 x 2 NC	12
Not Shown	10283	Nut 3/4 NC	12
Not Shown	10284	Lock Washer 3/4	12
18	12850	Tire and Rim	2
Not Shown	10347	9/16" x 1 3/4" NF Wheel Stud	16
19	22411	SMV Kit	1
20	22714	Grain Tank	1
Not Shown	10240	1/2" x 1-1/4" NC Bolt	4
Not Shown	10273	1/2" Serrated Flange Nut	4
Not Shown	11816	3/8" x 3/4" NC Bolt	2
21	22713	Grain Tank Lid	1
Not Shown	10239	1/2" Bushing	2
Not Shown	10238	1/2" Fender Washer	2
Not Shown	20058	1/2" x 1-1/2" NC Bolt	2
Not Shown	10241	1/2" NC Locknut	2
22	22707	Grain Tank Lid Baffle	1
Not Shown	11813	5/16" x 1-1/4" Truss Head Bolt	4
Not Shown	12496	5/16" Flat washer	4
Not Shown	11814	5/16" Serrated Flange Nut	4
23	22711	Grain Tank Lid Handle	1
Not Shown	13806	3/8" x 1" NC Bolt	2
Not Shown	10271	3/8" Serrated Flange Nut	2
24	22709	Grain Tank Lid Hinge (Right)	1
25	22708	Grain Tank Lid Hinge (Left)	1
Not Shown	11816	3/8" x 3/4" NC Bolt	4
Not Shown	10271	3/8" Serrated Flange Nut	4
26	13427	Auger Flighting	1
27	22710	Auger Motor Mount	1
28	10533	Auger Hydraulic Motor	1
Not Shown	10249	Auger Motor Seal Kit	1
Not Shown	10279	3/8" x 2" NC Bolt	1
Not Shown	10806	3/8" NC Locknut	1
Not Shown	10805	1/2" x 1-3/4" NC Bolt	2
Not Shown	10241	1/2" NC Locknut	2
Not Shown	11816	3/8" x 3/4" NC Bolt	4
Not Shown	10806	3/8" NC Locknut	4
29	10366	Bearing Assembly w/ Collar	1
Not Shown	10367	3/4" Lock Collar	1
Not Shown	10368	Bearing Flange	1
Not Shown	11662	5/16" x 3/4" Carriage Bolt	3
Not Shown	15408	5/16" Serrated Flange Nut	3
30	13668	Junction Box	1
Not Shown	20906	5/16" x 1" NC Bolt	2



Not Shown	11815	5/16" NC Locknut	2
Not Shown	13629	Wiring Clamp	6
Not Shown	11816	3/8" x 3/4" Bolt	3
Not Shown	10271	3/8" NC Serrated Flange Nut	3
31	23684	Fork Safety Lock	2
Not Shown	21709	1/2" x 4" Quick Pin	2
32	11307	Auger Spout Strap	2
Not Shown	10534	Auger Spout	1
Not Shown	11662	5/16" x 3/4" Carriage Bolt	3
Not Shown	15408	5/16" Serrated Flange Nut	2
Not Shown	11815	5/16" NC Locknut	1
Not Shown	16855	Rear Rotor Bearing Grease Kit	1
33	16808	Gas Shock- Grain Tank Lid	1
Not Shown	11813	5/16" x 1-1/4" Truss Head	2
Not Shown	11815	5/16" NC Locknut	2
34	16829	Grease Extension Tube	1
35	22696	Grease Extension Tab	1
36	16830	Grease Bulkhead Fitting	1
Not Shown	21428	Grommet	1
37	23708	1" Spring Bushing Insert	4



### FRONT END COMPONENTS





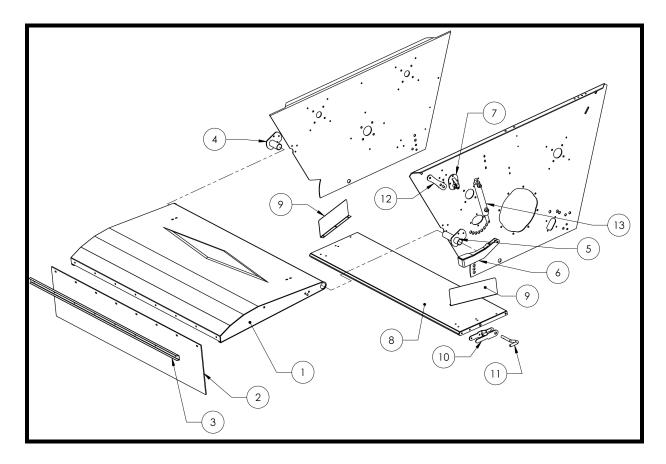
### FRONT END COMPONENTS PARTS LIST

ITEM NO	ITEM ID	DESCRIPTION	QTY.
1	10420	Gearbox	1
2	10421	PTO Shield	1
Not Shown	13767	3/8" x 3/4" NC Bolt	4
Not Shown	13773	3/8" Flat washer	4
3	20456	PTO Shaft	1
4	10285	Implement Jack	1
Not Shown	11785	Jack Pin	1
Not Shown	11786	Hair Pin	1
5	10452	Tongue Hitch	1
6	10453	Clevis for Tongue Hitch	1
Not Shown	10802	3/4" x 5 3/4" NC Bolt	2
Not Shown	10007	3/4" NC Locknut	2
Not Shown	21715	11000 lb Safety Chain	1
Not Shown	10322	1/2" x 2" Bolt	1
Not Shown	11668	1/2" Flat washer	2
Not Shown	10241	1/2" Lock nut	1
7	21720	Agitator Hydraulic Motors	2
8	11743	Diverter Valve	2
Not Shown	11783	5/16" x 3" Socket Head Bolt	3
Not Shown	12496	5/16" Flat washer	3
Not Shown	15870	5/16" NC Locknut	3
Not Shown	12895	Diverter Stack Kit	1
9	10455	Flow Control Valve	1
Not Shown	11811	1/4" x 2-3/4" Bolt	2
Not Shown	11812	1/4" Serrated Flange Nut	6
Not Shown	11666	1/4" Flat washer	2
10	21724	Flow Divider Valve	1
Not Shown	11811	1/4" x 2-3/4" Bolt	2
Not Shown	11812	1/4" Serrated Flange Nut	2
Not Shown	11666	1/4" Flat washer	2
11	20862	Twine Cutter Handle	1
12	17438	Twine Cutter Blade	1
13	17690	Twine Cutter Holder Inside	1
14	17691	Twine Cutter Holder Outside	1
Not Shown	11809	1/4" x 3/4" Bolt	4
Not Shown	11666	1/4" Flat washer	2
Not Shown	11812	1/4" Serrated Flange Nut	4
Not Shown	17587	Rubber Handle	1
15	22719	Manual Holder Bracket	1



16	22409	Operator Manual Cover	1
Not Shown	11809	1/4" x 3/4" Bolt	4
Not Shown	11666	1/4" Flat washer	4
Not Shown	11812	1/4" Serrated Flange Nut	4
17	22694	PTO Holder	1
18	22698	Hose Clamp	1
Not Shown	10806	3/8" NC Locknut	1
Not Shown	21428	Grommet	1

### DEFLECTORS



### **DEFLECTOR PARTS LIST**

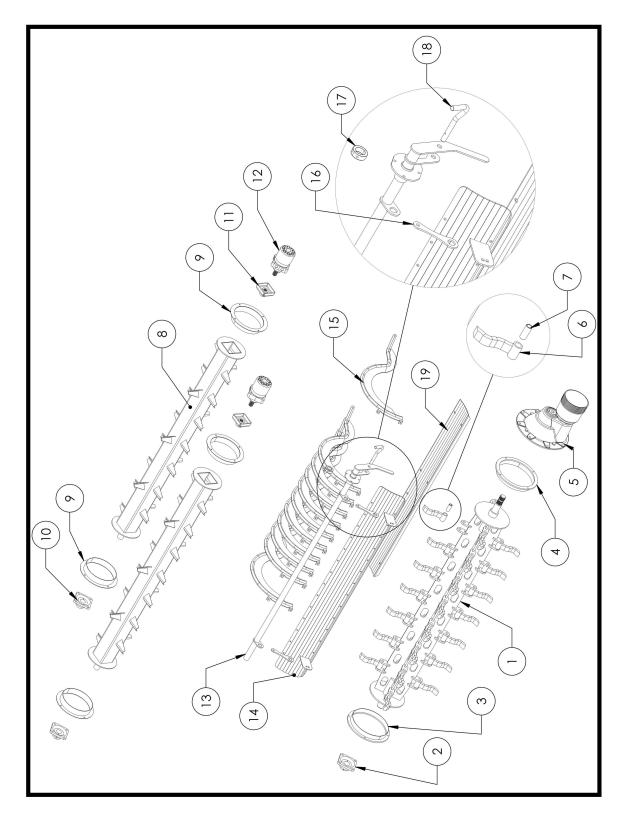
ITEM NO	ITEM ID	DESCRIPTION	QTY
1	22672	Main Deflector	1
2	10477	Rubber Deflector 18"	1
3	22423	Rubber Support Channel	1
Not Shown	13806	3/8" x 1" NC Bolt	8



Not Shown	10806	3/8" Nylon Nut	8
4	22690	Rear Deflector Pivot	1
Not Shown	13806	3/8" x 1" NC Bolt	3
Not Shown	10271	3/8" Serrated Flange Nut	3
5	22673	Front Deflector Pivot	1
Not Shown	13806	3/8" x 1" NC Bolt	3
Not Shown	10271	3/8" Serrated Flange Nut	3
6	22676	Deflector Control Arm	1
Not Shown	13806	3/8" x 1" NC Bolt	2
Not Shown	11667	3/8" Flat washer	2
Not Shown	10271	3/8" Serrated Flange Nut	2
Not Shown	10824	1/2" x 1" NC Bolt	1
Not Shown	11668	1/2" Flat washer	1
Not Shown	10273	1/2" Serrated Flange Nut	1
Not Shown	16364	1/4" Grease Zerk	1
7	22091	Deflector Cylinder Pivot	1
Not Shown	13806	3/8" x 1" NC Bolt	4
Not Shown	10271	3/8" Serrated Flange Nut	4
8	22688	Bottom Deflector	1
Not Shown	10239	Deflector Bushing	2
Not Shown	20058	1/2" x 1-1/2" NC Bolt	2
Not Shown	10238	1/2" Fender Washer	2
Not Shown	10241	1/2" NC Lock Nut	2
9	22686	Bottom Deflector Wing	2
Not Shown	11662	5/16" x 3/4" Carriage Bolt	6
Not Shown	11814	5/16" Serrated Flange Nut	6
10	22687	Bottom Deflector Handle	1
Not Shown	13806	3/8" x 1" NC Bolt	2
Not Shown	10271	3/8" Serrated Flange Nut	2
Not Shown	10297	Rubber Handle Cover	1
11	11784	Plated S-Handle	1
Not Shown	10301	Compression Spring	1
Not Shown	10302	Roll Pin, 3/16" x 1-1/4"	1
12	22689	Deflector Safety Lock	1
Not Shown	13231	1/2" x 2-1/2" NC Stabilizer Pin	2
Not Shown	13233	Lynch Clip	1
Not Shown	11820	1/2" x 2-1/4" NC Bolt	1
Not Shown	10273	1/2" NC Serrated Flange Nut	1
13	10317	Deflector Hydraulic Cylinder	1
Not Shown	10318	Seal Kit for Hydraulic Cylinder	1
Not Shown	10353	1/2" x 3-1/2" NC Bolt	1
Not Shown	11820	1/2" x 2-1/4" NC Bolt	1
Not Shown	10241	1/2" NC Lock Nut	2



## **INNER TUB PARTS**



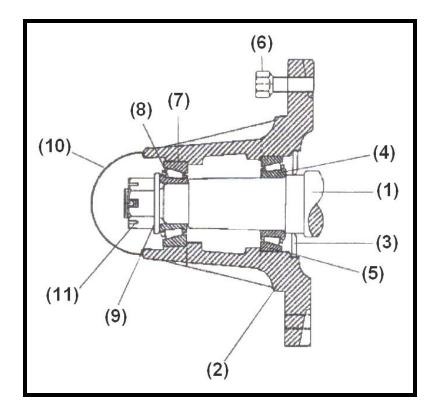
### INNER TUB PARTS LIST

ITEM NO	ITEM ID	DESCRIPTION	QTY
1	22695	Rotor	1
Not Shown	10459	Split Collar Support (Kit)	1
Not Shown	15543	Split Collar Half	2
Not Shown	10800	7/16" x 2-3/4" Bolt	4
Not Shown	10799	7/16" Lock nut	4
2	10221	1 15/16" Rotor Bearings	2
Not Shown	10274	5/8" x 1 3/4" NF Bolt	8
Not Shown	15398	5/8" Flange Locknut	8
Not Shown	10270	1/8" NPT Grease Zerk	2
Not Shown	17380	Rotor Shaft Cap	1
3	22692	Rear Rotor Twine Guard	1
Not Shown	13806	3/8" x 1" NC Bolt	4
Not Shown	10271	3/8" Serrated Flange Nut	4
4	22692	Front Rotor Twine Guard	1
Not Shown	13806	3/8" x 1" NC Bolt	4
5	22158	Gearbox	1
Not Shown	10805	1/2" x 1 3/4" NC Bolt	8
Not Shown	10273	1/2" Serrated Flange Nut	8
6	22412	Flail (replace in pairs)	30
7	10005	Flail Bushing	30
Not Shown	10443	3/4" x 4-3/4" Bolt	30
Not Shown	11823	3/4" NC Stover Lock Nut	30
8	22697	5 Inch Agitator	2
9	22419	Agitator Twine Guard	4
Not Shown	11816	3/8" x 3/4" NC Bolt	14
Not Shown	13806	3/8" x 1" NC Bolt	2
Not Shown	10271	3/8" Serrated Flange Nut	16
10	10038	1 3/4" Agitator Bearings	2
Not Shown	20058	1/2" x 1 1/2" NC Bolt	8
Not Shown	10273	1/2" Serrated Flange Nut	8
Not Shown	10270	1/8" NPT Grease Zerk	2
Not Shown	17381	Agitator Shaft Cap	2
11	22084	Agitator Coupler	2
12	21720	Hydraulic Agitator Motors	2
Not Shown	22820	Seal Kit for Hydraulic Motors	2
Not Shown	16863	1/2" x 2 1/2" NC Socket Head bolt	8
Not Shown	10183	1/2" Lock Washer	8
Not Shown	10273	1/2" NC Serrated Flange Nut	8
13	22701	Hoop Bar / Handle	1
Not Shown	13806	3/8" x 1" NC Bolt	4



Not Shown	10271	3/8" Serrated Flange Nut	4
Not Shown	10297	Rubber Handle	1
14	22699	Charging Panel	1
15	22700	Ноор	11
Not Shown	11661	3/8" x 2 1/4" NC Bolt	11
Not Shown	13806	3/8" x 1" NC Bolt	22
Not Shown	10806	3/8" NC Locknut	33
16	22693	Hoop Adjustment Shackle	2
Not Shown	20058	1/2" x 1 1/2" NC Bolt	4
Not Shown	10238	1/2" Fender Washer	4
Not Shown	10239	1/2" Bushing	4
Not Shown	10241	1/2" NC Locknut	4
17	12792	Split Coupler	1
18	11784	S-Handle	1
Not Shown	19471	Hoop Handle Spring	1
Not Shown	10302	3/16" x 1-1/4" Roll Pin	1
19	22716	Fine Chop Cover	1
Not Shown	10807	3/8" x 3/4" Fin Bolt	8
Not Shown	10271	3/8" Serrated Flange Nut	8

### WHEEL AND HUB ASSEMBLY

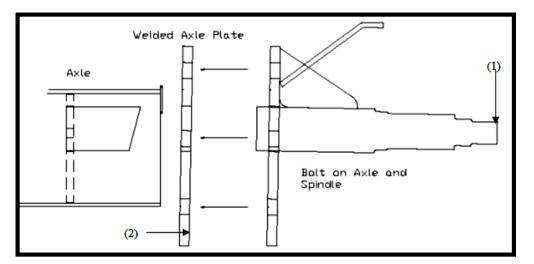




HUB P	ARTS LIST
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ITEM NO	ITEM ID	DESCRIPTION	QTY.
1	22706	Spindle 2.25" x 15.5"	2
2	10343	Hub 6500 Series	2
3	10344	Dirt Seal	2
4	10345	Inner Bearing Cone	2
5	10346	Inner Bearing Cup	2
6	10347	9/16" x 1 3/4" NF Wheel Stud	16
7	10348	Outer Bearing Cone	2
8	10349	Outer Bearing Cup	2
9	10071	1 1/16" x 2" Flat Washer	2
10	10072	3/16" x 1 1/2" Cotter Pin	2
11	10350	Dust Cap	2
12	10153	Castle Nut	2

## AXLE REPAIR KIT

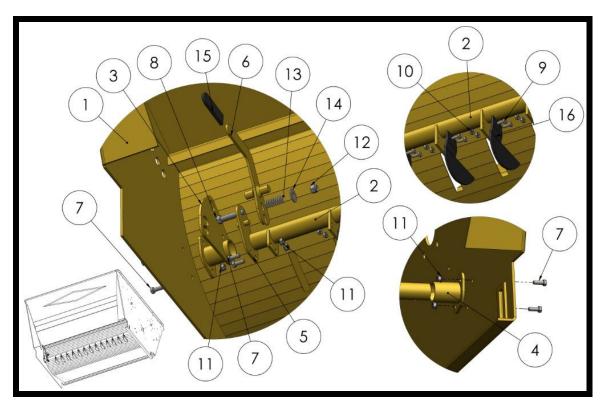


#### AXLE REPAIR KIT PARTS LIST

ITEM NO	ITEM ID	DESCRIPTION	QTY
	16993	Axle repair kit spindle	1
1	22706	Spindle assembly	1
2	N/A	Weldment Plate	1
Not Shown	13800	Bolt 3/4 x 2 NC	6
Not Shown	12455	Nut 3/4 NC	6
Not Shown	13795	Lock Washer 3/4	6



# FINE CHOP (OPTIONAL)

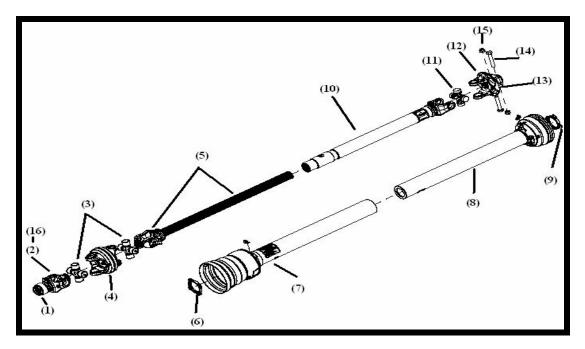


# FINE CHOP PARTS LIST

ITEM NO	ITEM ID	DESCRIPTION	QTY.
1		Frame and Tub	1
2	23657	Fine Chop Bar	1
3	23658	Fine Chop Mount (Front)	1
4	23659	Fine Chop Mount (Rear)	1
5	23661	Fine Chop Handle Mount	1
6	23660	Fine Chop Handle	1
7	13806	3/8" x 1" Bolt	8
8	10804	1/2" x 2-1/2" Bolt	1
9	11809	1/4" x 3/4" Bolt	26
10	11812	1/4" Serrated Flange Nut	26
11	10271	3/8" Serrated Flange Nut	8
12	10241	1/2" Nylon Lock Nut	1
13	21713	Fine Chop Handle Spring	1
14	11668	1/2" Flat Washer	1
15	10297	Rubber Handle	1
16	10404	Fine Chop Blade	13



# PTO SHAFT



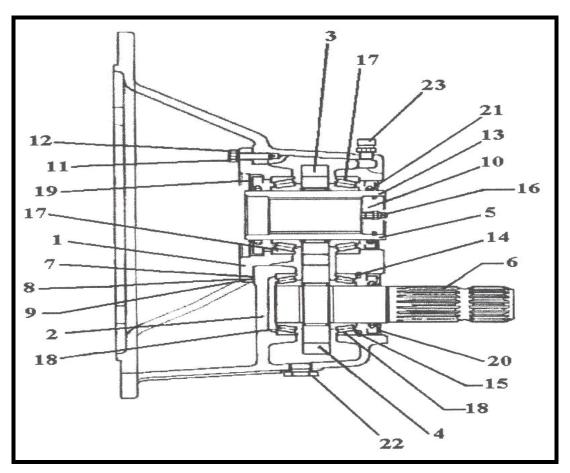
### PTO SHAFT PARTS LIST

ITEM NO	ITEM ID	DESCRIPTION	QTY
	20546	Complete PTO Assembly, Weasler Cat. 6	1
1	17567	Safety Slide Lock Repair Kit	1
2	20549	WWCV Auto-Lok Yoke ASM 1-3/8"-21 Spline	1
3	20550	CV Cross and Bearing Kit	2
4	20551	CV Center Housing	1
5	20552	Yoke and Shaft Assy. Tractor Side	1
6	20553	Guard Repair Kit Tractor Side	1
7	17583	Outer Guard Assy. Tractor Side (Incl. item #6)	1
8	17585	Inner Guard Assy. Impl. Side (Incl. item #9)	1
9	17572	Guard Repair Kit Implement Side	1
10	17584	Yoke and Tube Assy. Implement Side	1
11	17573	Cross and Bearing Kit	1
12	17581	Shear Assembly	1
13	11817	Shear Bolt, 3/8" x 2" NC Gr.5	1
	17586	3/8" NC Lock Nut	1
14		5/8" x 3-1/2" NF Gr.8 Bolt	2
15		5/8" NF Lock Nut	2
16	20556	WWCV Auto-Lok Assy. 1-3/4"-20 Spline	1

NOTE: CV U-joint cross has equal length arms (4.19"). Bearing cup diameter 1.38".



**GEARBOX** 



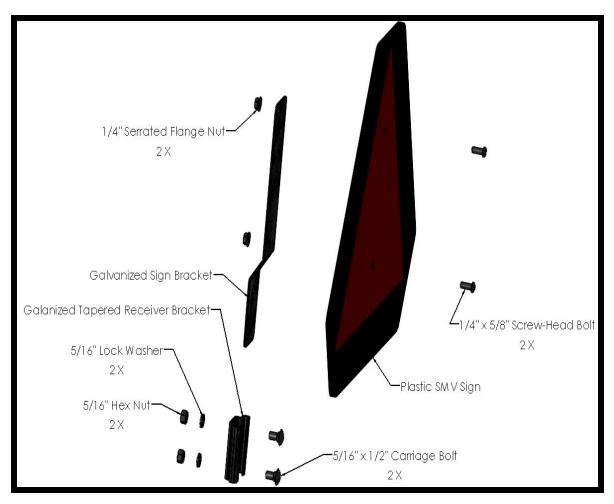
#### **GEARBOX PARTS LIST**

ITEM NO	ITEM ID	DESCRIPTION	QTY
	10420	Right Hand Gearbox	1
1	10480	Flange Output Shaft	1
2		Casting	1
3		Output Gear	1
4		Input Gear	1
5	10484	1 3/4" Internal Output Shaft	1
6	10485	1 3/4" Input Shaft	1
7	10486	Output Shaft Flange Shim	1
8	10487	Output Shaft Flange Shim	1
9	10488	Output Shaft Flange Shim	1
10	10489	Output Shaft Cover	1
11	10490	Bolt M8 x 25 x 1.25 cl. 8.8	6
12	10491	Washer 8.2 x 14.8 x 1.6	6



13	10492	Snap Ring	1
14	10493	Snap Ring 1.75 x 2.5	1
15	10494	Shims	1
16	10495	Grease Fitting M8 x 1.25	1
17	10496	Taper Roller Bearing	2
18	10497	Taper Roller Bearing	2
19	10498	Oil Seal 60 x 100 x 10	1
20	10499	Oil Seal 45 x 75 x 10	1
21	10500	Oil Seal 60 x 85 x 10	1
22	10501	Drain Plug	1
23	10502	Breather Plug	1





# SLOW MOVING VEHICLE (SMV) SIGN KIT

## SMV KIT PARTS LIST

ITEM NO	ITEM ID	DESCRIPTION	QTY
1	22411	Complete Kit	1



#### DECALS

The following decals are present on the Bale King 3115.





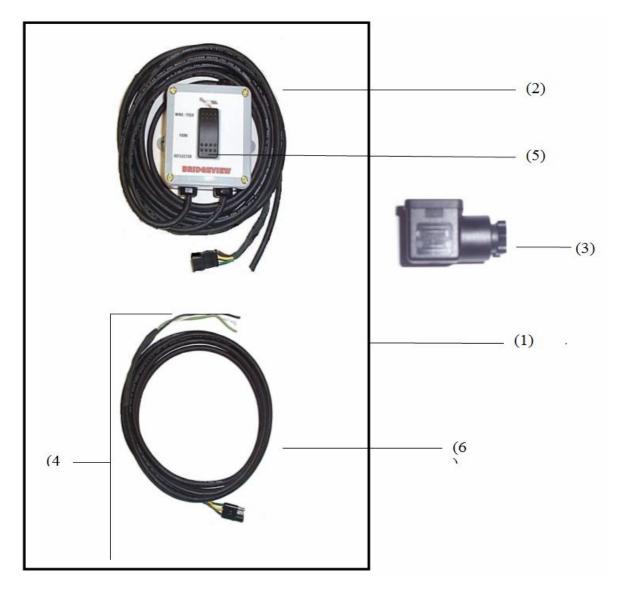


# **DECALS PARTS LIST**

ITEM NO	ITEM ID	DESCRIPTION	QTY.
1	12219	PTO Caution	2
2	13822	Stand Clear of Lift	2
3	12230	Side Discharge	4
4	12239	PIMA / AMC	1
6	13324	Red Reflective	3
7	13325	Amber Reflective	3
8	22534	"Bale King"	2
9	22538	"3115"	2
10	17439	Hoop Adjustment	1
11	13194	Deflector Lock	1



# **DIVERTER VALVE WIRING**

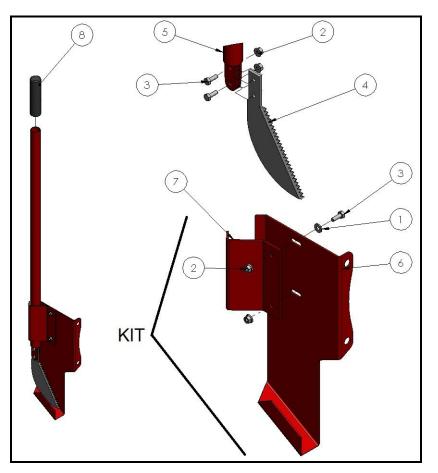


# DIVERTER VALVE PARTS LIST

ITEM ID	ITEM NO	DESCRIPTION	QTY
1	11800	Complete control box with harness for 3000 series	1
2	11793	Control box complete with cab to hitch harness all 3000 & 4000 series	1
3	13657	Square plug for diverter valve	2
4	13562	3 pin trailer plug	1
5	13561	3 way switch	1
6	11794	Harness (hitch to valve) 3000 series	

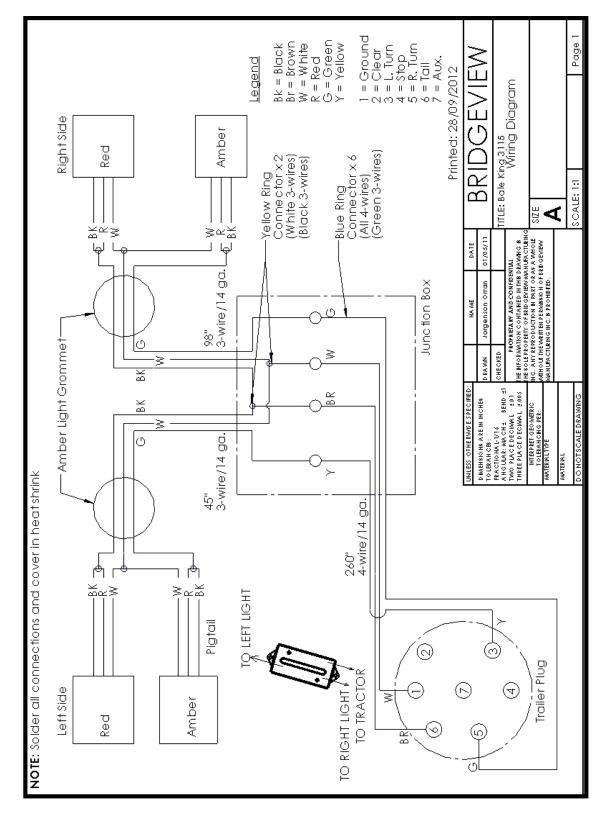


### **TWINE CUTTER**



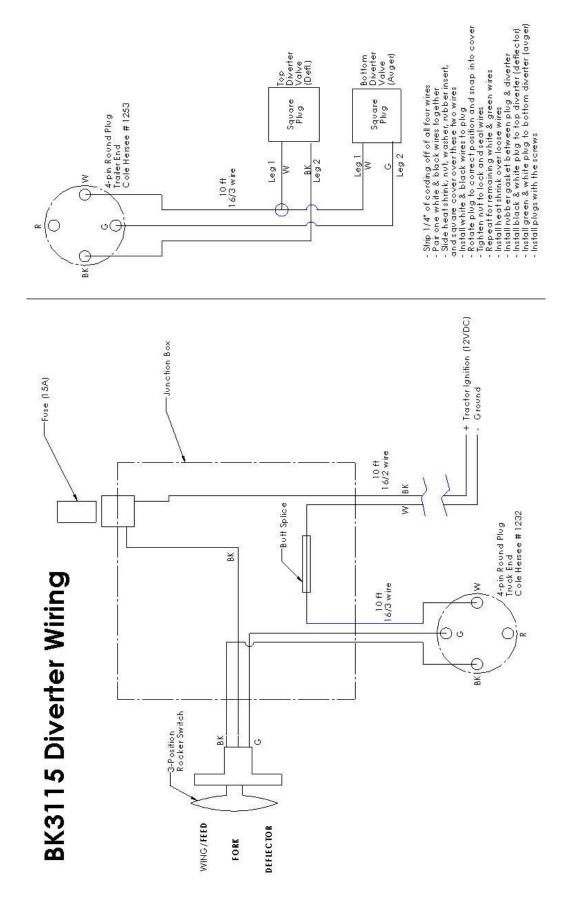
# TWINE CUTTER PARTS LIST

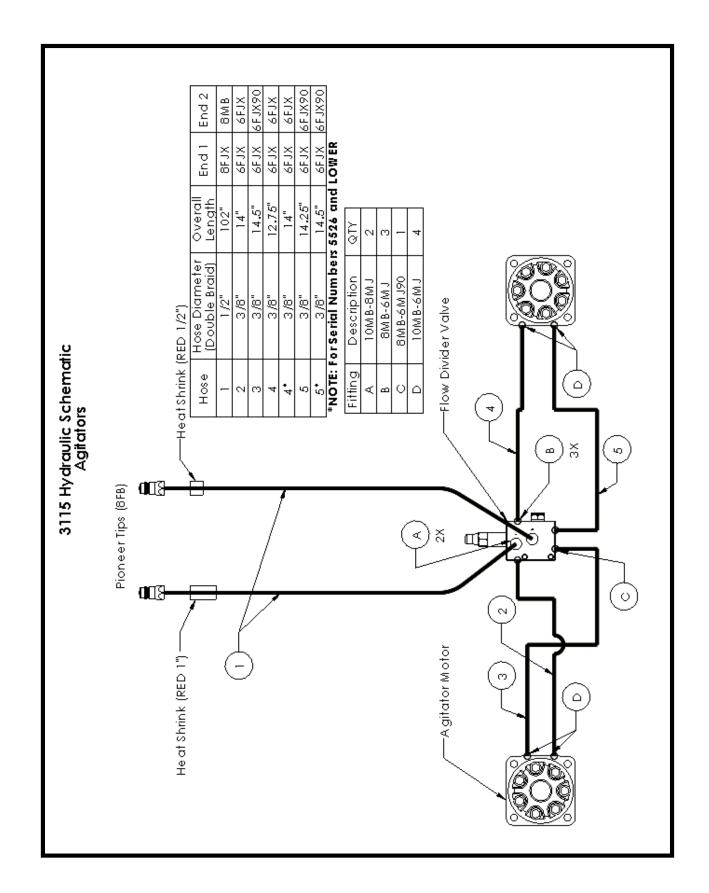
ITEM NO	ITEM ID	DESCRIPTION	QTY.
KIT	21549	Holder Kit	1
1	11666	1/4" Flat Washer	2
2	11812	1/4" Serrated Flange Nut	4
3	21221	1/4" x 3/4" Truss-head Bolt	4
4	17438	Twine Cutter Blade	1
5	20862	Twine Cutter Handle	1
6	176911	Twine Cutter Holder Outside	1
7	176901	Twine Cutter Holder Inside	1
8	17587	Rubber Handle	1



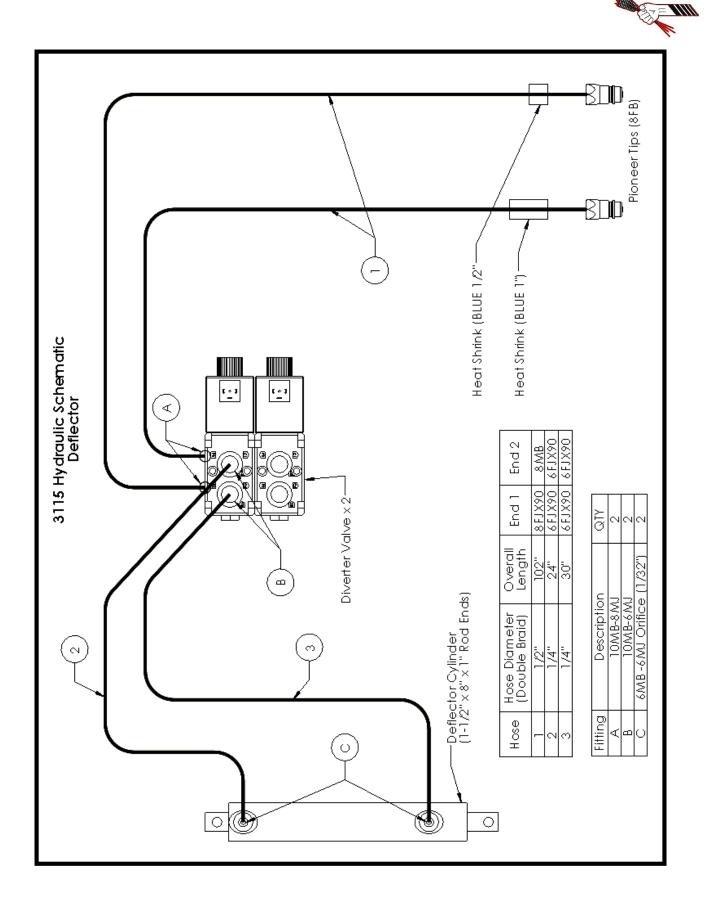
#### ELECTRICAL AND HYDRAULIC SCHEMATICS

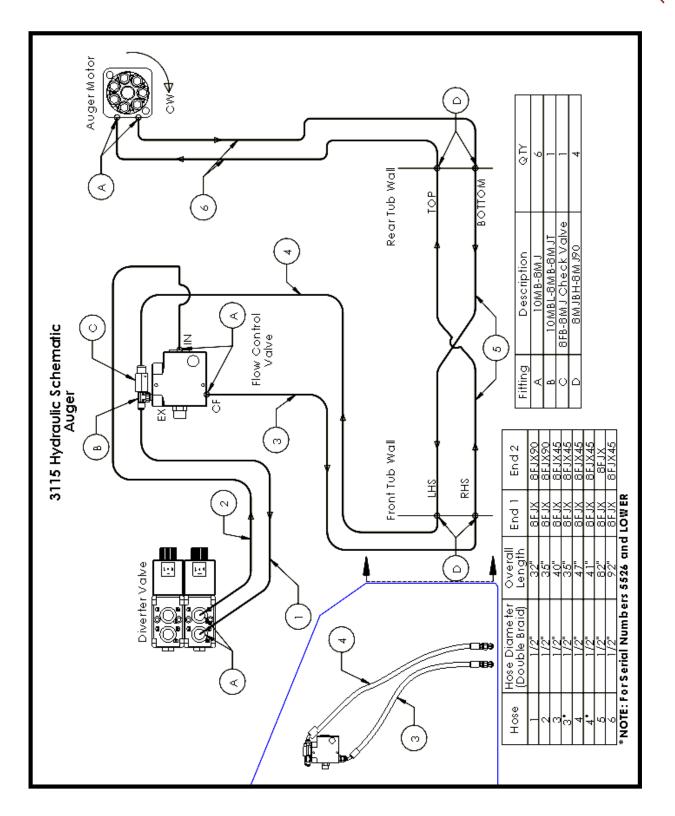






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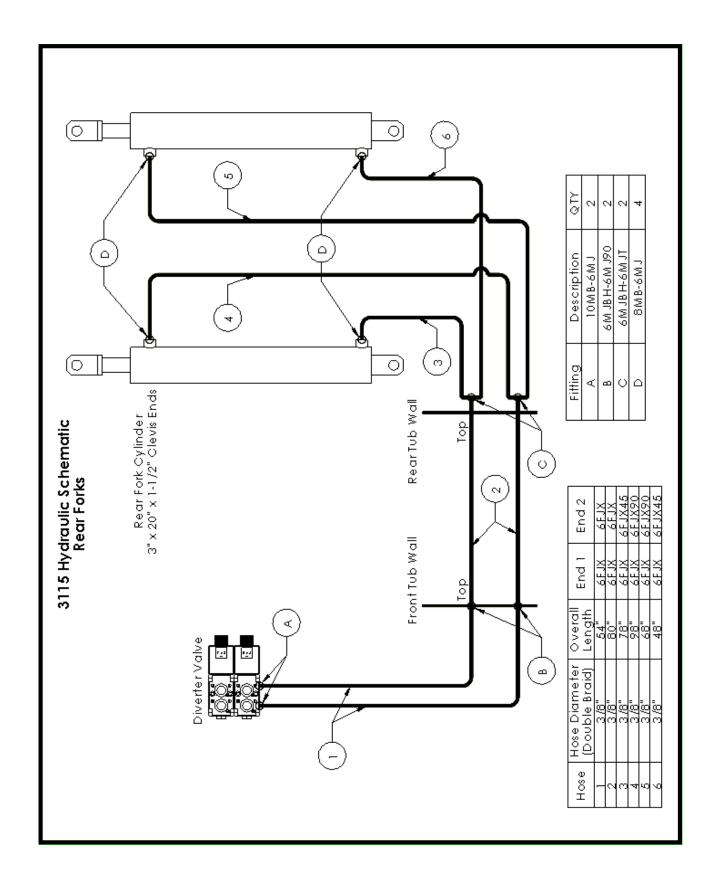














NOTES






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