



# BALE KING BR800





**Operator's & Parts Manual** 

Last Updated: February 15, 2015

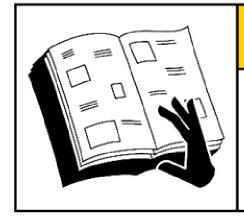
BRIDGEVIEW MANUFACTURING INC. P.O BOX 4, HWY 22 GERALD, SASK. SOA 1B0 CANADA Ph: 306-745-2711 Fax: 306-745-3364 Email: bmi@sasktel.net www.bridgeviewmanufacturing.com



**Your Authorized Dealer** 

Your Serial Number

The Serial Number is located behind the hitch on the front main frame cross member.



# AWARNING

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 BR800** bale retriever. 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 BR800. The manual covers in detail how to safely and effectively use your new bale retriever. 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.

#### Warranty Information

Bridgeview Manufacturing Inc. provides warranty on the BALE KING BR800 series to its original owner for a period of two years from the date of purchase according to the following provisions:



Normal Farm Use	Commercial, Government, or Rental Use
First year warranty covers parts* and labour.	One year warranty covers parts* and labour.
Second year warranty covers parts* only.	

- Warranty covers **defects** in material and workmanship.
- Warranty **does not** cover damage to the machine and its components if the operator does not follow the operating instructions in the operator's manual.
- Warranty **does not** cover normal wear and tear.
- Warranty will be **VOID** and Bridgeview Manufacturing Inc. is not liable in any way if the Bale King BR800 is used for any purpose other than its intended use.
- Tire warranty is covered by the **Tire Manufacturer.**

All warranty service must be handled through an authorized Bale King dealer. Any repairs after the warranty period are the owner's responsibility. Any **overtime** requested by the owner to have the machine repaired during the warranty period will be the owner's



responsibility. Warranty is at the dealership and **NO** travel time will be reimbursed. Freight costs associated with warranty repairs are not reimbursable. Warranty does not cover downtime. Warranty will be **VOID** if any component is altered or modified in any way, unless written permission is given by Bridgeview Manufacturing.

Bridgeview Manufacturing Inc. reserves the right to make changes or improvements at any time without notice or obligation.

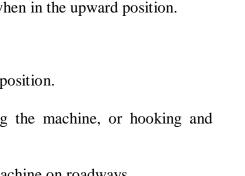
#### Safety Precautions

The following safety precautions MUST be followed to ensure safe operation of the Bale King BR800.

- **ALWAYS** turn **OFF** the tractor when leaving the operating platform.
- **DO NOT** walk or move under the lifting arm when in the upward position.
- ALWAYS stay clear of moving feeder chains.
- **DO NOT** climb under deck when in the raised position.
- ALWAYS turn off the tractor when cleaning the machine, or hooking and unhooking the machine.
- ALWAYS use safety chain when towing the machine on roadways.

**Hydraulic System Safety** WARNING: Pressurized hydraulic fluid can cause serious injury.

- When working with hydraulic equipment, eye and hand protection should be worn.
- Do not test for leaks with bare hands.
- Relieve any pressure before removing a hose or fitting.
- Never work under components raised by hydraulic equipment unless supported externally.







## FEATURES

#### Implement Tongue

The adjustable hitch on the Bale King is a cast single tongue with hammer strap insert. It can be attached to a tractor equipped with a hammer strap or with a single drawbar. The design of the tongue allows the machine to move over rough terrain without bending the draw pin.

**ATTENTION:** Set the drawbar to **16 inches** behind the PTO shaft to ensure no stress is placed on the hydraulic hoses. Adjust the hitch height such that the machine sits level when attached to the tractor.

#### **Torflex Axles**

The Bale King BR800 is equipped with three Torflex axles to handle large loads and provide smoother travel over rough and uneven terrain.

#### Lifting Arm

The lifting arm on the BR800 can handle up to 6.5 ft round bales. The arm can be adjusted to accommodate smaller bales by loosening the eight bolts as shown to the right, moving the arm to the desired position, and retightening the bolts. The quarter-turn arm allows for loading from any direction, rotating the bale to the correct orientation for loading.



#### Bale Deck

The bale deck is designed to carry up to 8 large round bales. Two feeder chains move the bales back on the deck allowing more bales to be loaded. Type 2082 roller chain is used in order to reduce damage to twine or bale wrap. The deck is also equipped with two stoppers at the back to prevent bales from falling off. These stoppers automatically lower when the deck is raised to unload the bales.



# **OPERATION**

#### **Hooking up Machine**

- Connect machine to tractor drawbar.
- Shut off the tractor.
- Connect hydraulic hoses and light plug to tractor.
- Retract jack fully, rotate to horizontal position, and lock in place with pin.
- Attach safety chain to the tractor.
- Visually inspect machine to ensure everything is in proper working condition.
- Start tractor and test lifting arm, deck tilt, and chain operation.

#### **Loading Bales**

- Drive along left side of bale.
- Lifting arm will rotate bale to correct orientation.
- Drive until bale is against back of lifting arm frame.
- Lift arm until bale rolls onto deck.
- Operate feeder chains to move bales back far enough to allow another bale to be loaded.
- Two stoppers are mounted at the back of the deck to prevent bales from falling off due to running the chains too far or driving over rough or uneven terrain.

#### **Unloading Bales**

- Raise deck up, stoppers will automatically lower to allow unloading of bales.
- Operate feeder chains while driving ahead slowly. Match tractor speed with chain speed to reduce damage to twine or bale wrap.
- Lower deck once all bales are unloaded.









#### Loading Bales from Row

- Back up straight to row of bales.
- Raise deck up.
- Operate chains in reverse.
- Drive tractor backwards slowly, matching tractor speed to chain speed.
- Once desired number of bales are loaded, lower deck.

#### **Unhooking Machine**

- Shut off the tractor.
- Disconnect hydraulic hoses and light plug from tractor.
- Rotate jack to vertical position, lock in place, and extend until machine is resting on jack.
- Disconnect machine from tractor drawbar.

There are three sets of hydraulic hoses to connect to the tractor, each with a marking to distinguish which component it controls. The hoses should be connected to the tractor to suit the operator's preference.

Large hose with <b>Yellow</b> marker:	Feeder Chains
Medium hose with <b>Blue</b> marker:	Lifting Arm
Medium hose with Green marker:	Deck Lift Cylinders

Note: Always set the tractor's hydraulic flow at a lower rate and adjust it upward until the desired speed is reached. Excessive oil flow may damage the flow divider cartridge.

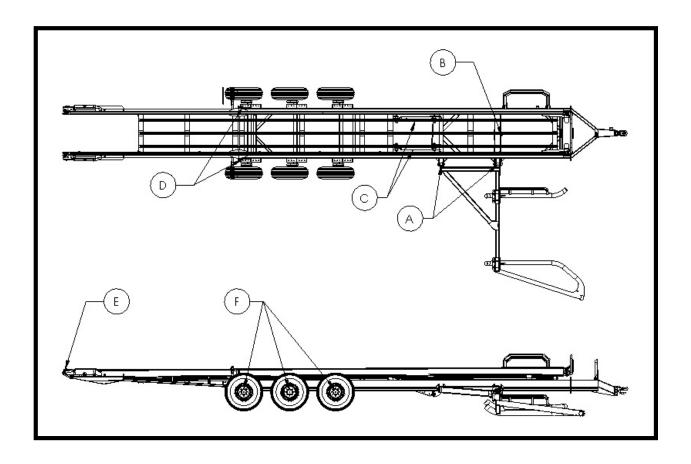


# MAINTENANCE

#### Lubrication

The BR800 needs be lubricated using good quality grease, at the following locations at each of the specified intervals.

	Location	Timeline	
Α	Lifting Arm Pivot (x 2)	200 Balas (ar 10 hours)	
В	Lifting Arm Cylinder (x2)	200 Bales (or 10 hours)	
С	Deck Lift Cylinder (x4)	1000 Dalas (or 50 hours)	
D	Deck Pivot (x2)	1000 Bales (or 50 hours)	
E	Idler Wheel (x2)	Weekly	
F	Wheel Hubs (x 6)	Seasonally (or 300 hours)	





#### Wheels and Tires

Examine tires for cuts, bruises, cracks, bulges and penetrations. Inspect and lubricate axles annually.

#### **Tire Inflation and Rating**

Wheel bearings should annually be lubricated and inspected for any required adjustment. Inspect more often for extensive traveling. Proper tire inflation will help to alleviate puncture problems when towing and operating on rough terrain.

Check for proper tire inflation	24 PSI
Replace any damaged tires	14Lx16.1-12 ply
Check and tighten wheel bolts on a regular basis	125 ft-lb

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.

Note: Warranty does not cover damaged rims and hubs due to loose wheel bolts or flat tires. Tire warranty is covered by the tire manufacturer.



#### Hub Removal

Procedure for maintenance and replacing hubs.

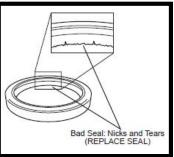
- 1. Elevate and support the rear axle.
- 2. Check for excessive wheel end play by pulling the tire assembly towards you and by pushing the assembly away from you. Slight end play is acceptable.
- 3. Rotate tire slowly forwards and backwards. The wheel assembly should turn freely and smoothly. If there is excessive wheel end play, restriction to rotation, noise, or "bumpy" rotation, the bearing unit needs to be replaced.
- 4. Remove the wheel.
- 5. Remove the dust cap by carefully prying around the flange of the cap.



- 6. Remove the cotter pin from the spindle nut.
- 7. Unscrew the spindle nut and remove the spindle washer.
- 8. Remove the hub from the spindle, being careful not to allow the outer bearing cone to fall out. The inner bearing cone will be retained by the seal.
- 9. Clean all the part and make sure the bearing and the spindle will not get contaminated.

#### **Bearing and Seal Inspection**

- If the bearing shows signs of pitting or corrosion then the bearing must be replaced. The bearing cup inside the hub must be inspected. Bearings should be replaced in sets.
- Repack all good bearings with grease.
- Whenever the hubs are removed, inspect the seal to ensure that it is not nicked or torn and is still capable of properly sealing the bearing cavity. If there is any question of condition, replace the seal.



#### **Hub Installation**

If the hub has been removed or bearing adjustment is required, the following adjustment procedure must be followed:

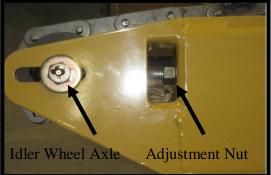
- 1. After placing the hub, bearings, washers, and spindle nut back on the axle spindle in reverse order as detailed in the previous section on hub removal, rotate the hub assembly slowly while tightening the spindle nut to approximately 50 lbs.-ft.
- 2. Then loosen the spindle nut to remove the torque. Do not rotate the hub.
- 3. Tighten the spindle nut until it is snug and install cotter pin.
- 4. Pack hub full of grease and install dust cap.
- 5. Install the wheels and fasten the nuts.



#### Feeder Chains

- Lubricate both chains every 50 hours of operation and before long periods of storage.
- Check chain tension at center of deck by applying 30 lbs of force on the chain. Correct tension is measured as 1 inch deflection between chain and deck. Adjust chain tension using the following steps:
- 1. Loosen nut on rear idler wheel axle.
- 2. Turn adjustment nut accordingly until correct chain tension is acheived.
- 3. Tighten nut on idler wheel axle.
- 4. Repeat Steps 1-3 on other chain.





#### Cylinder Maintenance

To remove the hydraulic cylinders for repair or maintenance, follow these steps:

- Fully lower the deck (or lifting arm) and unhook hydraulic lines. Be sure there is no pressure on the lines and mark the line locations so there is no confusion when reinstalling the cylinders. Check hydraulic schematics.
- On deck lift cylinders, remove locking bolts on inside of cylinders and remove cylinder pins. On lifting arm cylinder, remove roll pins on front side of cylinder, and remove cylinder pins.
- To reinstall, reverse the removal procedure.

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

**NOTE:** Check all hoses and fittings periodically for leaks. Tighten or replace any dripping components or any worn out hoses.



# TRANSPORTATION

The Bale King BR800 can be safely towed on public roads, following these precautions:

- Tow vehicle must be rated for at least 8800 lb gross, 2700 lb tongue when machine is empty, and 28800 lb gross, 7500 lb tongue when loaded.
- NEVER exceed 40 km/h (25 mph).
- ALWAYS ensure that the safety chain is properly installed
- Tow vehicle must have a 7 pin round trailer plug
- Plug in lights and check for proper function (flashing amber lights, solid red lights)



- Ensure that the supplied SMV (Slow Moving Vehicle) sign is clearly visible from the rear
- Raise the lifting arm completely.
- Ensure that the hydraulic hoses are properly secured.



# **TROUBLESHOOTING GUIDE**

Problem	Possible Cause	Remedy
	Broken drive sprocket	• Replace failed part.
A single chain stops Chain jumped off idler wheel		• Refer to next line.
Chain jumps off	Idler wheel packed with debris	<ul> <li>Clean idler wheel and place chain back on.</li> <li>Refrain from pushing back of deck into ground when tilting deck.</li> </ul>
idler wheel	Chain tension is not properly adjusted	• Place chain back on idler wheel and correctly adjust chain tension.
Stoppers don't lift up	Flow rate set too low	• Adjust flow rate to at least 10 gpm.



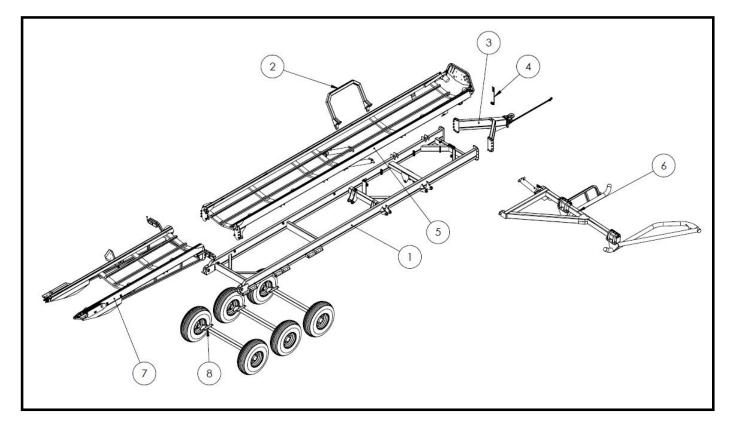
# FEATURES AND SPECIFICATIONS

Dimensions:		
Weight (Empty)	8800 lb	
Maximum Weight (Loaded)	28800 lb	
Drawbar Weight (Empty)	2700 lb	
Maximum Drawbar Weight (Loaded)	7500 lb	
Overall Height (Lifting Arm Up)	158"	
Overall Height (Lifting Arm Down)	56"	
Overall Length	47`	
Overall Width (Lifting Arm Up)	102"	
Overall Width (Lifting Arm Down)	213"	
Tread Width (on centers) 79.25"		
Heavy Duty Reinforced Frame and A	Axle Assembly:	
Main Frame	8" x 3" Tubing, 3" x 3" Tubing	
	Reinforcement	
Frame Width	50"	
Heavy Duty Square Jack	Mounted on Frame	
Adjustable Hitch Height	4 settings at 1.5" intervals	
Dual Hydraulic Deck Lift Cylinders	4" x 24" x 2.5" Rod	
Single Hydraulic Lifting Arm Cylinder	4" x 14" x 2" Rod	
Tire Size	14Lx16.1-12 Ply	
Tire Inflation	24 psi	
Wheel Nut Torque	125 ft-lb	
Feeder Chain Type	2082	
Minimum Horsepower Requirements	75 HP	
Required Number of Hydraulic Remotes	3	



# PARTS MANUAL

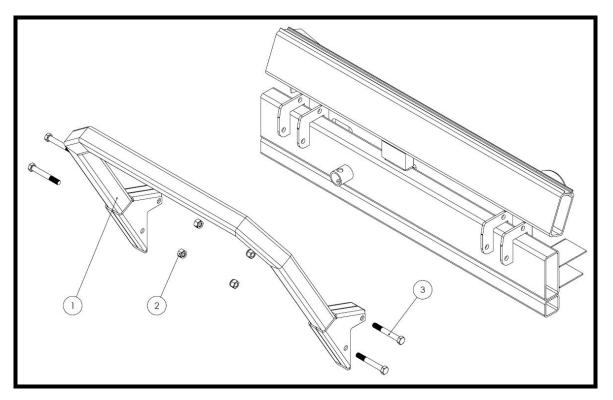
## Bale King BR800



Item #	Description	QTY.
1	Main Frame	1
2	Side Stopper Bar	1
3	Hitch	1
4	Hose Hanger	1
5	Main Deck	1
6	Lifting Arm	1
7	Tail	1
8	Torflex Axle	3



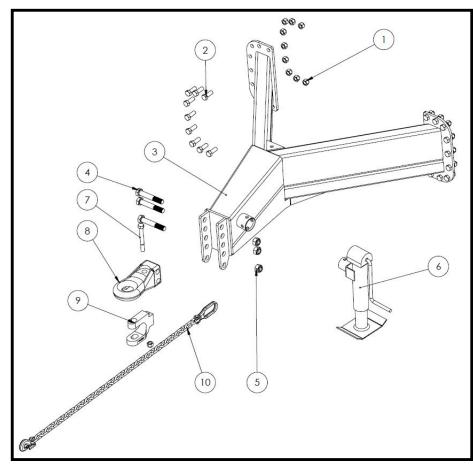
## Side Stopper Bar



Item #	Description	ID number	QTY.
1	Side Stopper Bar	24487	1
2	3/4" Nylon Lock Nut	10007	4
3	3/4" x 5-1/2" Bolt	14471	4



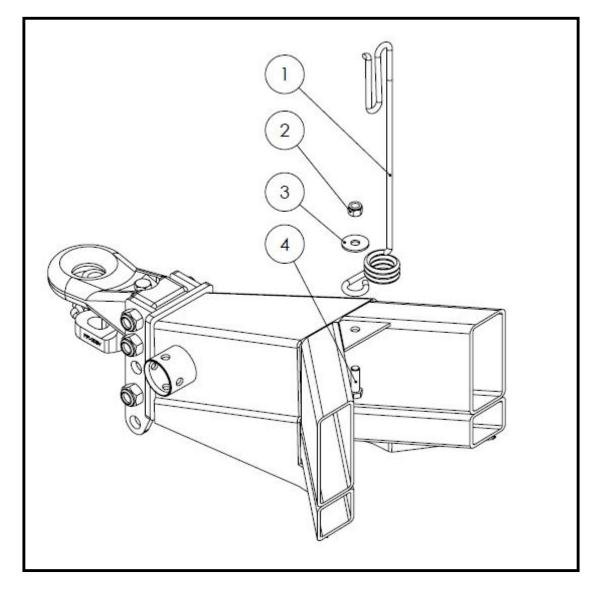




Item #	Description	ID number	QTY.
1	3/4" Stover Lock Nut	11823	19
2	3/4" x 2" Bolt	13800	18
3	Hitch	24478	1
4	1" x 6" Bolt	21728	3
5	1" Stover Lock Nut	21746	3
6	7000 LBS Jack	23677	1
7	3/4" x 6" Bolt GR.8	23170	1
8	Casting Hitch (7500 LBS)	23404	1
9	Hitch Clevis	22441	1
10	21000 LBS Safety Chain	23559	1



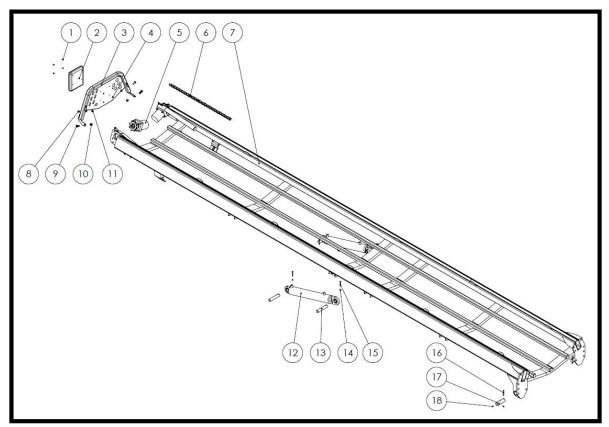
## Hose Hanger



Item #	Description	ID number	QTY.
1	Hose Hanger	17967	1
2	5/8" Nylon Lock Nut	10364	1
3	5/8" Flat Washer	17972	1
4	5/8" x 2" Bolt	11699	1



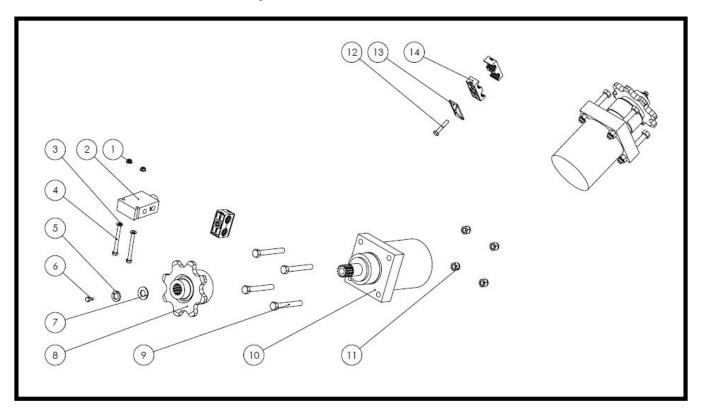
## Main Deck



Item #	Description	ID number	OTY.
1	1/4" x 3/4" Bolt	11809	4
2	Operator's Manual Box	22409	1
3	Front Bumper	24488	1
4	1/4" Serrated Flange Nut	11812	4
5	Chain Motor Assembly	See hydrauli	c diagram
6	2082 Chain	23092	2
7	Main Deck	24481	1
8	5/8" x 1-1/2" Bolt	10173	2
9	3/4" x 2" Bolt	13800	2
10	3/4" Nylon Lock Nut	10007	2
11	5/8" Nylon Lock Nut	10364	2
12	4 x 24 x 2-1/2" Hydraulic Cylinder	24276	2
13	1-15/32" x 6-3/4" Cylinder Pin	22006	4
14	3/8" Nylon Lock Nut	10806	6
15	3/8" x 3" Bolt	20905	4
16	3/8" x 3-1/4" Bolt	23325	2
17	Deck Pivot Pin	23596	2
18	Grease Zerk	16364	2



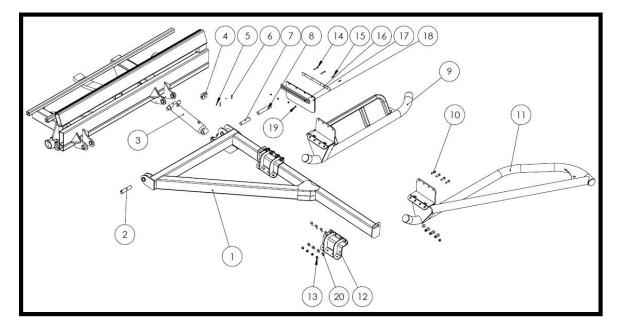
## Chain Motor Assembly



Item #	Description	ID number	QTY.
1	1/4" Serrated Flange Nut	11812	2
2	Flow Divider (2082 Chain)	11742	1
3	1/4" Flat Washer	11666	2
4	1/4" x 2" Bolt	11663	2
5	5/8" Lock Washer	13792	2
6	5/8" x 1-1/4" Bolt NF Grade 8	13328	2
7	5/8" Flat Washer	13975	2
8	8 Tooth Sprocket	23747	2
9	1/2" x 4.0" Bolt	23540	8
10	See Hydraulic Diagram		
11	1/2" Nylon Lock Nut	10241	8
12	5/16" x 1-3/4" Bolt	21726	2
13	Hose Clamp Top 1/2"	21725	2
14	Hydraulic Hose Clamp 1/2"	21561	4

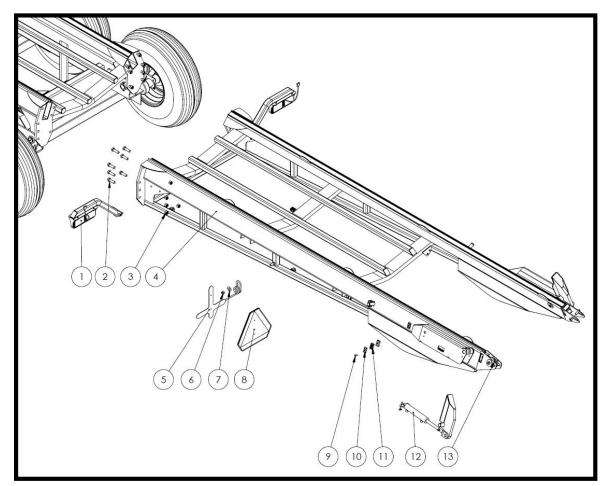


# Lifting Arm



Item #	Description	ID number	QTY.
1	Lifting Arm Frame	24483	1
2	1-1/2" x 6" Cylinder Pin	24133	1
3	4 x 14 x 2" Hydraulic Cylinder	23094	1
4	Line Lock	19114	1
5	Grease Zerk	16364	4
6	1/4" x 2-1/4" Roll Pin	23544	4
7	1-1/2" x 5-1/2" Cylinder Pin	24131	1
8	1-1/2" x 8" Cylinder Pin	24132	2
9	Inside Arm	24484	1
10	5/8" x 2" Bolt	11699	16
11	Outside Arm	24485	1
12	Mounting Flange	24486	2
13	5/8" Nylon Lock Nut	10364	16
14	3/8" x 2-1/2" Bolt	26307	2
15	3/8" x 1.0	13806	2
16	Mud flap bracket 1	26304	1
17	Mud flap bracket 2	26305	1
18	Mud flap	26303	1
19	3/8" Nylon Lock Nut	10806	4
20	5/8" Flat Washer	17972	16



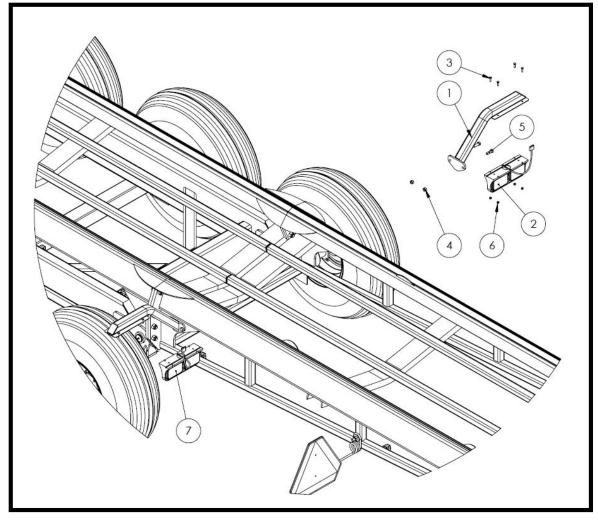


Item #	Description	ID number	QTY.
1	Light Assembly	See breakdown	1
2	3/4" x 2-1/2" Bolt	14470	14
3	3/4" Stover Lock Nut	11823	14
4	Tail Frame	24482	1
5	SMV Sign Bracket	24656	1
6	5/8" Nylon Lock Nut	10364	1
7	5/8" Flat Washer	17972	1
8	Plastic SMV Sign Kit	22411	1
9	5/16" x 1-1/4" Bolt	22183	4
10	Hose Clamp Top 1/4"	22182	4
11	Hydraulic Hose Clamp 1/4"	22181	8
12	Rear Stopper Assembly	See breakdown	1
13	Idler Wheel	See breakdown	2

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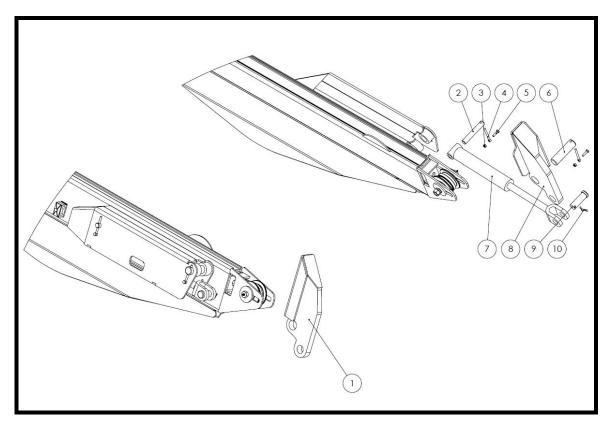
# Light Assembly



Item #	Description	ID number	QTY.
1	Light Bracket	24491	2
2	Right Light	22969	1
3	1/4" x 1" Bolt	11810	8
4	1/2" Stover Lock Nut	20154	4
5	1/2" x 1-1/2" Bolt	10174	4
6	1/4" Nylon Lock Nut	11664	8
7	Left Light	22968	1



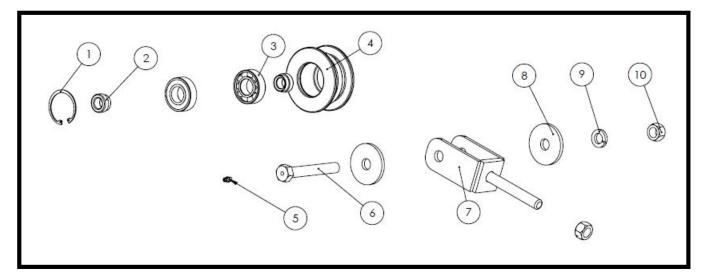
## Rear Bale Stopper



Item #	Description	ID number	QTY.
1	Left Stopper Paddle	24490	1
2	3/4" x 4" Cylinder Pin	24127	2
3	1/4" Nylon Lock Nut	11664	4
4	1/4" Rod End Blank	24279	4
5	1/4" x 1" Bolt	11810	4
6	1-1/4" x 4" Cylinder Pin	24129	2
7	1-1/2 x 6 x 1" Hydraulic Cylinder	24277	2
8	Right Stopper Paddle	24489	1
9	1" x 2-1/2" Cylinder Pin	21830	2
10	3/16" x 1-1/2" Cotter Pin	10072	2



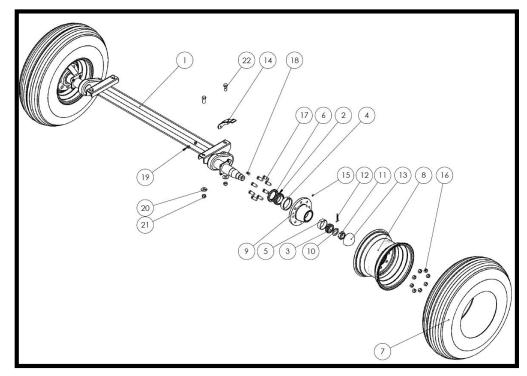
## Idler Wheel Assembly



Item #	Description	ID number	QTY.
1	Snap ring Idler Wheel	23755	1
2	Idler Bushing	23756	2
3	Idler Wheel Bearing	23757	2
4	Idler Wheel	23758	1
5	Grease Zerk	16364	1
6	5/8" x 4-1/2" Grease	23597	1
7	Idler Wheel Clevis	23745	1
8	5/8" Heavy Flat Washer	17972	2
9	5/8" Lock Washer	13792	1
10	5/8" Nut	10176	2



## Axles

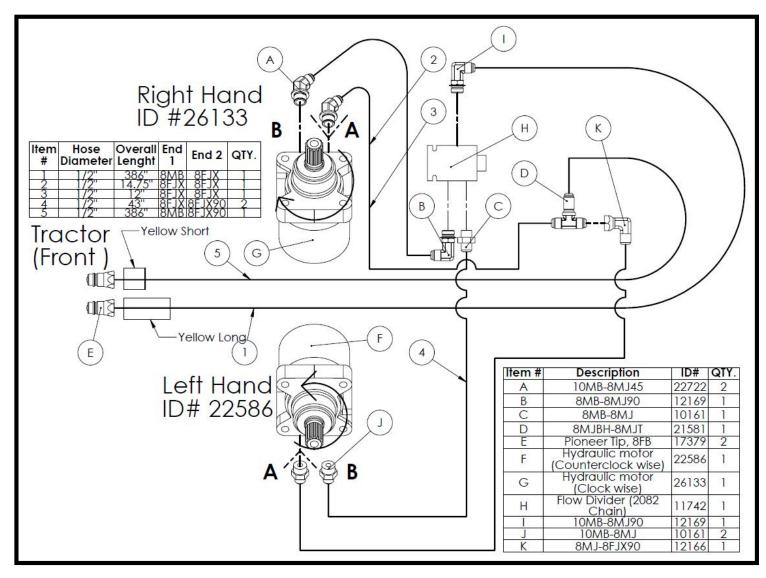


Item #	Description	ID number	QTY.
1	Torflex axles	22850	1
2	Inner Bearing	23567	2
3	Outer Bearing	23568	2
4	Inner Cup	23571	2
5	Outer Cup	23570	2
6	Seal	23569	2
7	Tire 14L-16.1SL (12 Ply)	22851	2
8	Rims W11C x 16.1 x 8	23742	2
9	Hubs 8 on 8	23572	2
10	Washer For Spindle	23564	2
11	Castle Nut	23566	2
12	Cotter Pin	23565	2
13	Dust Cap	23563	2
14	Twine Guard	23744	2
15	Grease Zerk (Hubs)	10270	2
16	Wheel Nut	23183	16
17	Wheel Stud	23572	16
18	1/2" x 1-1/4" Bolt	10240	8
19	1/2" Serrated Flange Nut	10273	8
20	3/4" Flat Washer	13717	4
21	3/4" Stover Lock Nut	11823	4
22	3/4" x 2.0" Bolt	13800	4



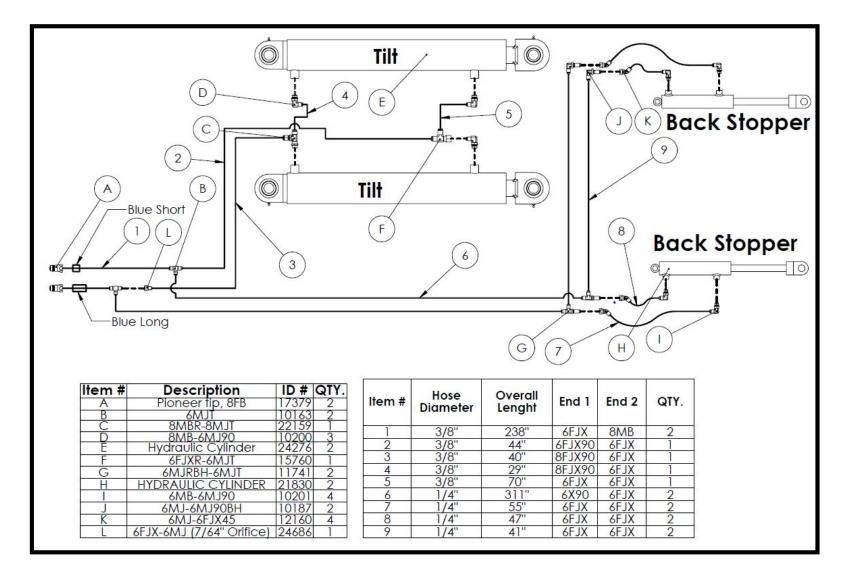
## Hydraulic and wiring diagram

#### **Conveyor Chain motor**





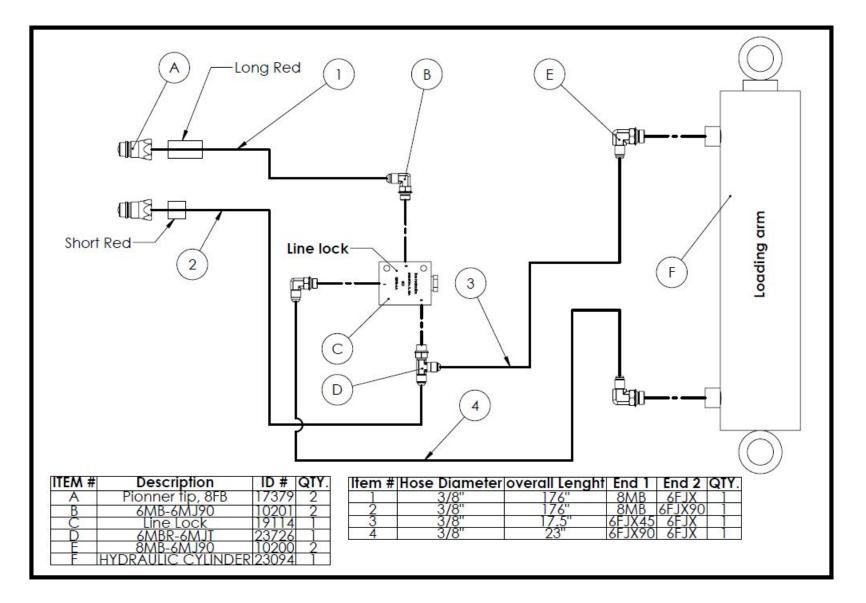
#### **Tilt /Back Stopper**



26

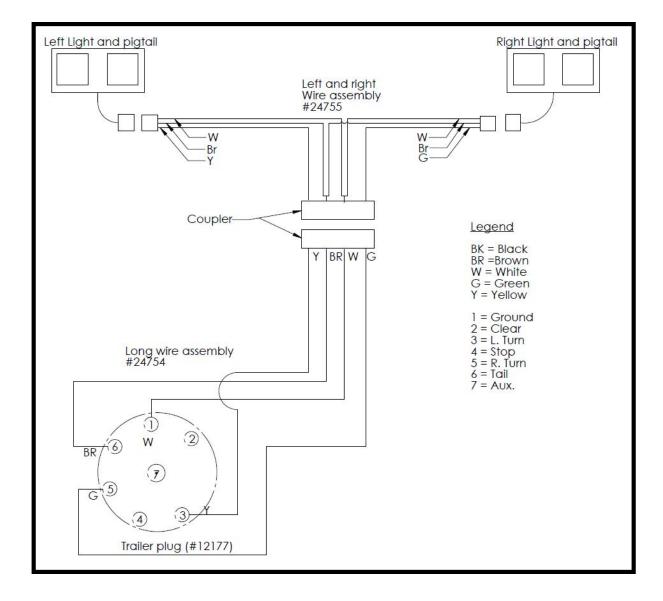


#### Loading arm





#### Light Diagram





NOTES






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