

Farm King

OPERATOR AND PARTS MANUAL

12112 and 12122 Backsaver Auger



12112 / 12122 Backsaver Auger

TO THE OWNER

Thank you for purchasing a Farm King 12112 / 12122 Backsaver Auger.

Farm King Backsaver Augers have been designed to provide many years of profitable and dependable service. To assure maximum performance of your Backsaver auger, it is mandatory that you thoroughly study the operator's manual and follow its recommendations. PLEASE EXAMINE YOUR UNIT CLOSELY AND READ THE ASSEMBLY INSTRUCTIONS TO SEE THAT YOUR UNIT IS PROPERLY ASSEMBLED. Proper operation and maintenance are essential for safety, to maintain performance, and to maximize the life of the Backsaver auger. When ordering parts or inquiring about the auger, you must include the serial number which is located on the second upright of the lower truss support.

It is the owner's responsibility to:

Operate and maintain this Backsaver auger in a safe manner and in accordance with all applicable local, state, and federal codes and/or laws.

Make sure each and every operator has read the operator's manual and thoroughly understands safe and correct operating procedures.

Make sure unauthorized people do not operate or are not in the vicinity of the Backsaver auger while it is in operation.

Maintain the Backsaver auger in accordance with the maintenance schedule in this manual. Furthermore, as additional technology becomes available, the owner is responsible for improving the safety and reliability of the system.

Fulfill all warranty obligations so as not to void the warranties. Verify the unit is warranty registered prior to making any warranty claims. The warranty section at the back of this manual outlines the warranty policy of Farm King.

Abuse or modifications to the Backsaver auger that change the performance other than original factory specifications void the warranty.

Farm King reserves the right to make product improvements to the equipment at any time. It shall not be obligated to make such changes to machines already in service.

**The owner, manager and/or operator is responsible for safe, accurate operation and maintenance of the Farm King 12112 / 12122 Backsaver Auger.*

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Manufacturer's statement: for technical reasons Buhler Trading Inc. reserves the right to modify machinery design and specifications provided herein without any preliminary notice. Information provided herein is of descriptive nature. Performance quality may depend on grain type, grain moisture, auger elevation and other factors.

Safety First

Accidents can be prevented by recognizing the causes or hazards before an accident occurs and doing something about them.

Regardless of the care used in the design and construction of this equipment, there are some areas that cannot be completely safeguarded without interfering with the accessibility and efficiency of operation.



THIS MESSAGE ALERT SYMBOL IDENTIFIES IMPORTANT MESSAGES IN THIS MANUAL. WHEN YOU SEE THIS SYMBOL, BE ALERT TO THE POSSIBILITY OF PERSONAL INJURY AND CAREFULLY READ THE MESSAGE THAT FOLLOWS.

In this manual and on labels used on the machine the words “DANGER”, “WARNING”, and “CAUTION”, are used to indicate the following:

- DANGER:** Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.
- WARNING:** Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.
- CAUTION:** Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.

In this manual the words “IMPORTANT” and “NOTE” are used to indicate the following:

- IMPORTANT:** Highlights information that must be heeded.
- NOTE:** A reminder of other related information that needs to be considered.

Safety Instructions

1. DO NOT ALLOW ANYONE TO OPERATE THIS FARM KING BACKSAVER AUGER UNTIL HE OR SHE HAS READ THIS MANUAL AND IS COMPLETELY FAMILIAR WITH ALL SAFETY AND OPERATION PROCEDURES.



WARNING

Observe all federal, state and provincial environmental regulations and all federal, state, provincial and local codes and / or laws regarding licensing, handling, storage and transportation of the equipment.



CAUTION

Always wear protective clothing, goggles, hearing protection, respirator and gloves. Do not wear loose clothing that can catch on the PTO shaft or machinery.



DANGER

Stay away from overhead obstructions and power lines during operation and transporting. Electrocuting can occur without direct contact.

2. If any safety device on the Backsaver auger itself is not functioning properly, DO NOT use the Backsaver auger. Remove it from service until it has been properly repaired by a qualified service technician.
3. Do not allow the following people to operate or repair this equipment:
 - Children
 - Irresponsible persons
 - People under the influence of alcohol, medications or other drugs that can cause drowsiness or impaired judgement.
 - Persons unfamiliar with equipment or people who are careless or unfamiliar with safe operating procedures.

General Safety Instructions

1. Have a first-aid kit available for use and know how to use it.
2. Have a fire extinguisher available, store it in a highly visible location & know how to use it.
3. Wear appropriate protective gear. This list may include but is not limited to:
 - Hard hat
 - Protective shoes with slip resistant soles
 - Protective glasses or goggles
 - Heavy gloves
 - Wet weather gear
 - Hearing protection
 - Respirator or filter mask
4. Read and understand the Operator's Manual and all safety decals before operating, servicing, adjusting, repairing, or unplugging the equipment.
5. Do not attempt any unauthorized modifications to your Buhler product as this could affect function or safety, and could affect the life of the equipment.

6. Shut off all power and LOCK THE POWER OFF before servicing, adjusting or repairing.
7. Inspect and clean the working area before operating.
8. Keep hands, feet, clothing, and hair away from moving parts.
9. Ensure bystanders are clear of the area before operating.
10. Keep all shields in place.
11. Never operate the unit with any shields removed.
12. Never step across any rotating member.
13. Do not use the auger or hopper as a crane or hoist.

Start-Up Safety

1. Do not let inexperienced operators or children near this equipment, and do not let them run it.
2. Place all tractor and machine controls in neutral before starting.
3. Operate only with ROPS and seat belt equipped tractors.
4. Do not operate inside a building unless there is adequate ventilation.
5. Ensure all shields are in place and in good condition before operating.
6. 3-point pins must be installed between auger and tractor to prevent IID separation.
7. Do not place wheels on risers to gain additional height or reach.
8. Before starting the tractor, be certain that the PTO is disengaged.
9. Stay clear of PTO shaft and machine when engaging PTO.
10. The auger must be on a level surface and wheels free to move when raising or lowering.
Because of the scissors action of the undercarriage assembly, if the wheels of the auger or towing unit cannot move, it will result in damage to the unit. Everyone should be kept clear during these operations
11. Keep auger away from electrical power lines.
12. Tractor must be attached to auger during operation to prevent upending.
13. Hitch pin must be installed between auger and tractor to prevent IID separation.
14. Verify that the IID (PTO power shaft) is securely attached to the tractor before starting.
15. Operate on level ground. If ground is uneven, anchor the discharge end to prevent tipping.
16. Move the auger with a vehicle. Never attempt to move it manually.
17. Never allow anyone under the auger when raising or lowering.
18. Double check for electrical power lines.
19. Inspect the lift cable before erecting the auger and replace if it is frayed or damaged.
20. Verify that the winch is rotating the correct way to raise the auger.
21. Stop the hydraulic winch BEFORE the track car reaches the end of the track.
22. Do not allow the cable to "stack up" on one side of the winch drum.
23. Never guide the cable with any part of the human body.
24. Never stand along side the winch cable when raising or lowering the auger.
25. Erect the auger on level ground, free of obstructions and holes.
26. Always install the axle extensions before erecting the auger.
27. The auger must be empty of grain before raising, lowering or transporting.

Operation Safety

1. Do not permit riders.
2. Do not stand on the intake hopper.
3. Do not wear loose fitting clothing during operation.
4. Empty the auger before moving, to prevent upending.
5. The auger should be attached to the drawbar of the tractor at all times during operations.
6. Do not allow anyone other than the operator close to the auger when in operation.
7. Never stand under the auger while raising or lowering.

8. When filling tall bins, tanks, or granaries, it is advisable to anchor the auger to the bin or building to prevent it from being tipped over by the wind or a sudden movement. The upper end of the auger should rest on some support when in operation.
9. Do not operate intake auger when it is folded in transport position.
10. Never raise the intake end of the auger above waist high, as the balance shifts forward, and the auger will tip over.
11. Stay away from overhead obstructions and power lines during operation and transporting.
Electrocution can occur without direct contact.
12. All personnel in the area **MUST** know how to stop the tractor in an emergency.
13. Do not insert fingers, hands, feet, clothing, sticks, boards, wrenches, bars, etc. into the mesh intake guard when in operation.
14. Anchor discharge end to prevent tipping over in high wind.
15. Do not mount excessive weight to the discharge end of the auger.
16. Disconnect the winch hydraulic hoses from the tractor to prevent accidental raising or lowering of the auger.
17. Always install the axle extensions before erecting the auger.
18. Do not raise the Swing Drive Feed Hopper higher than the drive section inlet when removing the auger from the bin. Doing so may cause the hopper to fall off the drive section and cause personal injury.
19. Lower the auger after use to prevent accidental raising or lowering of the auger.

Transport Safety

1. Review Transport Safety instructions in tractor manual before moving.
2. Check with local authorities regarding transport on public roads. Obey all applicable laws and regulations.
3. Do not tow equipment that does not have brakes at speeds over 32 km/h (20 mph).
4. Do not tow equipment that does not have brakes that, when fully loaded, has a mass (weight) over 1.5 tons (3300 lb) and more than 1.5 times the mass (weight) of the towing unit.
5. Make sure the SMV (Slow Moving Vehicle) sign and all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean, and can be seen clearly by all overtaking and oncoming traffic.
6. Never have the equipment in operation during transport.
7. Always transport the auger in the down position, carrying the weight of the auger on the undercarriage itself, and not the hydraulic cylinder.
8. Take extreme caution in maneuvering on or around tight corners so as not to catch the end of the auger on trees, buildings, power lines, etc.
9. The equipment should never be towed without the safety chain securely attached to the auger and the towing vehicle.
10. When moving the auger on the road, always use a red flag, or if absolutely necessary to move at night, accessory lights for adequate warning to operators of other vehicles.
11. Always travel at a safe speed.
12. Inflate transport tires to recommended pressure.
13. Remove the IID (PTO power shaft) from the tractor before moving the auger.
14. Move the auger with a vehicle. Never attempt to move it manually.
15. Keep all persons off the auger during transport, raising or lowering.
16. Verify that all anchors on the auger have been removed before attempting to move.
17. Make certain that the wheels on the axle are free to move before raising or lowering.
18. Inspect the lift cable before erecting the auger and replace if it is frayed or damaged.
19. Do not allow the cable to "stack up" on the side of the hopper winch drum.
20. Never guide the cable with any part of the human body.

21. The auger must be empty of grain before raising, lowering or transporting.
22. Transport the auger in the full down position with slight cable tension.
23. Do not transport on slopes greater than 20°.
24. Do not allow the axle to be greater than 20° to the horizontal.
25. Use caution when turning with the auger.
26. Do not transport faster than 32 km/h (20 mph).
27. Disconnect the winch/cylinder hydraulic hoses from the tractor after positioning to prevent accidental raising or lowering of the auger.
28. The hopper safety latch must be engaged before road transport.
29. Before raising the auger from the transport position, lower the Ground Hugger Hopper to within a few inches of the ground. This will give clearance between the hopper and the undercarriage. Check for clearance as the auger is raising. Hopper pivot should be free during operation and transport.

Service and Maintenance Safety

1. Stop engine, set brake, remove ignition key, and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.
2. Lubricate at recommended intervals with recommended lube and/or grease.
3. Support the equipment with blocks or safety stands before working beneath it.
4. Follow good shop practices including:
 - Keep service area clean and dry
 - Be sure electrical outlets and tools are properly grounded
 - Use adequate light for the job
5. Use only tools, jacks, and hoists of sufficient capacity for the job.
6. Replace and secure all shields removed during servicing before operating.
7. Use heavy leather gloves to handle sharp objects.
8. Check hydraulics regularly for leaks. Never use any part of the human body as oil injection can occur causing serious injury. Use metal or wood to look for leaks, and use hand and eye protection.
9. Relieve pressure on hydraulic system before repairing or adjusting.
10. Keep decals clean. Replace any damaged decals.
11. Keep all shields in place. Replace after adjustment or maintenance.
12. Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion, which may result in serious injury or death.

Storage Safety

1. Store the unit in an area away from human activity.
2. Do not permit children to play on or around the stored machine.
3. Support the frame on stands and blocks to provide a secure base.
4. When storing an auger, park it on level ground so that the bottom end will never be over its center of gravity.
5. Block the wheels of the auger so that the auger will not move and tear the jack from its mount.

Safety Decals on the Farm King 12112 / 12122 Backsaver auger

The following illustrations show the approximate location and detail of safety decals. Keep all safety decals clean and legible and replace any that are damaged or missing. When original parts are replaced, any safety decals affixed to those parts should be replaced as well. Replacement safety decals are available from your local dealer.

INSTALLATION

To install safety decals, ensure the installation area is clean and dry. Decide on the exact position before you remove the backing paper. Remove the smallest portion of the split backing paper and align over the specified area. Carefully press in place. Slowly peel back the remaining paper and smooth the remaining portion in place. Small air pockets can be pierced with a pin and smoothed out.



SZ06527



SZ06023

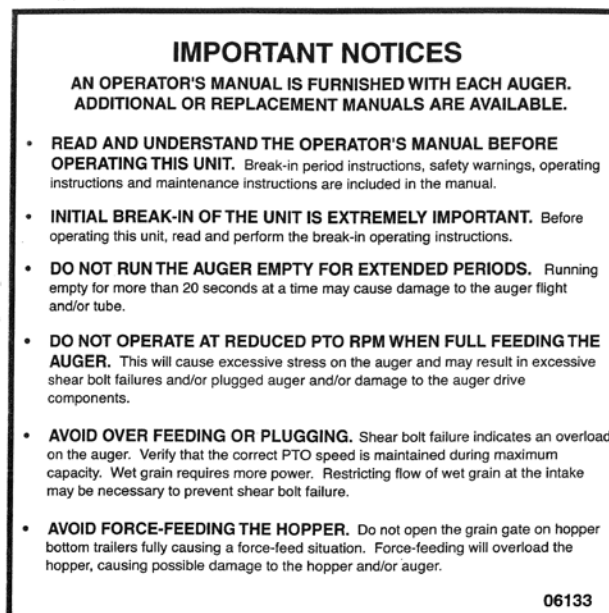


SZ06136

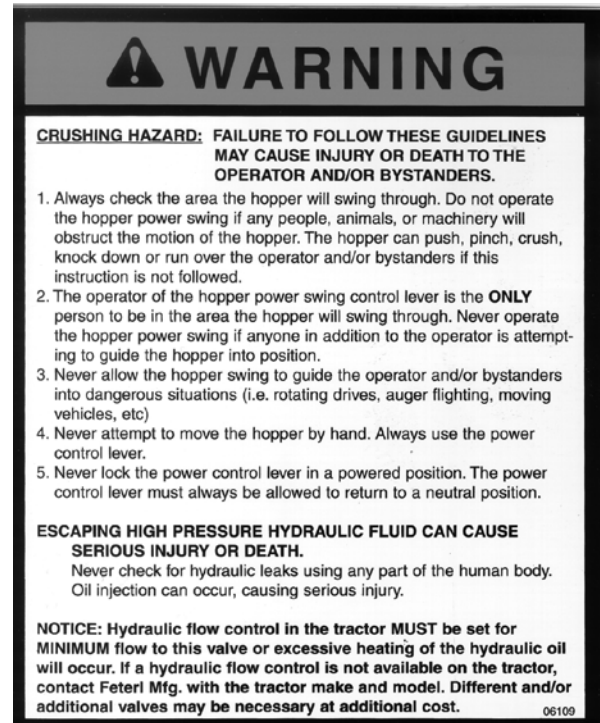
Safety Decals on the Farm King 12112 / 12122 Backsaver auger



SZ06049



SZ06133



SZ06109

Safety Decals on the Farm King 12112 / 12122 Backsaver auger



WARNING

AN OPERATOR'S MANUAL IS FURNISHED WITH EACH GRAIN AUGER. ADDITIONAL OR REPLACEMENT MANUALS ARE AVAILABLE. DO NOT OPERATE THE UNIT BEFORE READING AND UNDERSTANDING THE OPERATOR'S MANUAL. UNDERSTAND THE OPERATING PROCEDURES BELOW TO AVOID PERSONAL INJURY OR DEATH.

Intentional or accidental contact with moving parts may result in a **SERIOUS INJURY OR DEATH**. Observe the following operating procedures.

- ▲ **KEEP ALL SAFETY DEVICES IN PLACE!**
- ▲ **DO NOT ADJUST, SERVICE, LUBRICATE, CLEAN, UNCLOG OR MOVE THE MECHANISM UNTIL ALL POWER IS SHUT OFF!**
- ▲ **KEEP HANDS, FEET AND CLOTHING AWAY FROM MOVING PARTS WHILE IN OPERATION!**
- ▲ **KEEP OFF THE EQUIPMENT AT ALL TIMES!**
- ▲ **MAKE CERTAIN THAT EVERYONE IS CLEAR OF THE EQUIPMENT AT ALL TIMES!**
- ▲ **MAKE CERTAIN THAT EVERYONE IS CLEAR OF THE EQUIPMENT BEFORE APPLYING POWER!**
- ▲ **KEEP CHILDREN, VISITORS AND ALL UNTRAINED PERSONNEL AWAY FROM MACHINE WHILE IN OPERATION!**

Care must be used when moving or transporting the auger. Accidental tipping or upending of an auger can occur and may cause **SERIOUS INJURY OR DEATH** to the operator or bystanders.

- ▲ **NEVER MOVE THE AUGER MANUALLY!**
- ▲ **BE SURE AUGER IS EMPTY BEFORE ATTEMPTING TO MOVE!**
- ▲ **NEVER PUSH ON THE UNDERCARRIAGE OF THE AUGER!**
- ▲ **TOW THE AUGER AT SLOW SPEED AND IN THE DOWN POSITION!**
- ▲ **ALWAYS TEST THE INTAKE END OF THE AUGER FOR DOWNWARD WEIGHT WHEN ATTACHING OR RELEASING!**
- ▲ **NEVER RAISE THE HITCHPOINT HIGHER THAN THE VEHICLE'S TOW BAR.**

An auger can collapse and fall on the operator or bystanders causing a **SERIOUS INJURY OR DEATH**. Always support the discharge end when the following conditions occur:

- ▲ **WHILE UNIT IS IN OPERATION!**
- ▲ **WHEN DISMOUNTING THE UNDERCARRIAGE!**

The accidental tipping or upending of an auger may cause **SERIOUS INJURY OR DEATH** to the operator or bystanders. When the grain flow is shut off to the auger an overbalance situation can occur, suddenly raising the intake of the auger. Adequate anchorage of the intake end or support from bin is required at all times, especially in the following conditions:

- ▲ **WHILE UNIT IS IN OPERATION!**
- ▲ **WHEN MOVING THE AUGER!**
- ▲ **WHEN RAISING OR LOWERING THE AUGER!**

▲ **Maximum elevation is determined by interference between track car and auger structure. The operator MUST STOP RAISING the auger BEFORE track car reaches the end of the track. Continued lift will cause failure of the winch, lift cable or auger supports, causing auger to collapse, which can result in SERIOUS INJURY OR DEATH!**

Contact with overhead wires may cause **ELECTROCUTION** of the operator or bystanders. Contact with overhead obstructions may cause collapse or tipping of the auger or may cause the overhead obstruction to fall. In both cases the operator or bystander can be **SERIOUSLY INJURED OR KILLED!** Observe the following:

- ▲ **TOW THE AUGER AT SLOW SPEED AND IN THE DOWN POSITION!**
- ▲ **RAISE OR LOWER THE AUGER SLOWLY!**

Electrical malfunction can cause **ELECTROCUTION** of the operator or bystanders. Observe the following rules:

- ▲ **DISCONNECT POWER AND ELECTRICAL DRIVEN UNITS BEFORE RESETTING MOTOR OVERLOADS!**
- ▲ **DO NOT OPERATE ELECTRIC MOTOR EQUIPPED UNITS UNTIL UNIT IS PROPERLY GROUNDED!**

Contact with rotating flighting will cause **SERIOUS INJURY OR DEATH!**

- ▲ **DO NOT STAND ON THE INTAKE CAGE!**
- ▲ **KEEP HANDS, FEET AND CLOTHING AWAY FROM THE INTAKE AND DISCHARGE FLIGHTING!**

067112

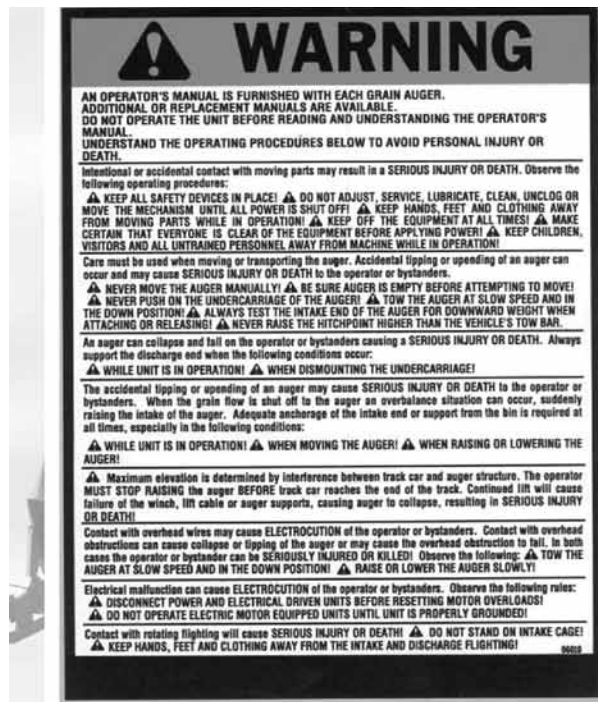
Safety and Instruction Decals

When a decal has been removed or damaged, new decals can be obtained from Farm King.

Part #	Decal	Description	Size & Color
SZ06001	–	Made in the USA	2-1/8" dia.- Red, White, Blue
SZ000110	FARM KING	Farm King logo for white augers	41" x 6" - Red
SZ06010	WARNING	Do not operate the unit before reading the operator's manual	7-1/2" x 11" - Orange
SZ06011	WARNING	Contact w/ rotating flighting & moving parts	4" x 4" - Orange
SZ06017	NOTICE	Raising or lowering the auger with blocked or trapped wheels	4-1/2" x 3-1/2" - Yellow
SZ06018	NOTICE	Do not operate when empty during break-in period	5-1/2" x 5" - Black
SZ06021	WARNING	This auger transports over-height	4" x 4-1/4" - Orange
SZ06023	WARNING	Contact with moving parts	4" x 4" - Orange
SZ06026	WARNING	Use 3/8" Grade 5 shear bolt	2" x 1-3/4" - Yellow
SZ06049	WARNING	Hydraulic Operation	4-1/2" x 4" - Orange
SZ06051	DANGER	Rotating Flighting	4" x 5-1/4" - Red
SZ06052	NOTICE	Auger Worm Winch - wrap cable (modified)	5" x 3" - White
SZ06055	NOTICE	The IID should be disconnected	4-1/2" x 3" - White
SZ06057	–	Grease gun silhouette	1-1/4" x 1/2" - White
SZ06058	WARNING	Do not raise the Feed Hopper	5" x 5" – Orange
SZ06067	NOTICE	Patent No. 5,184,714	1-1/2 x 5/8" – White
SZ06077	NOTICE	Drain hole cover must be opened	3" x 1-1/2" - White
SZ06078	NOTICE	Avoid over feeding	4" x 2" - White
SZ06080	IMPORTANT	The flighting thrust load must be carried	4-1/2" x 2" - Yellow
SZ06109	WARNING	Crush Hazard (included with Powered Wheel Kit)	5" x 6" – Orange
SZ06112	NOTICE	Gear box must be checked for proper oil level	1-1/2" x 4" - White
SZ06133	IMPORTANT	An operator's manual is furnished	–
SZ06527	DANGER	Electrocution Hazard	4" x 4" - Red
SZ06528	NOTICE	Do not tow over 20 mph	2" x 1" – White
SZ000113	FARM KING	Farm King logo for red augers	41" x 6" - Silver
SZ000111	12122	12122 for white augers	19-1/1" x 4-1/2" Red

Part #	Decal	Description	Size & Color
SZ000114	12122	12122 for red augers	19-1/2" x 4-1/2" Silver
SZ000116	Feterl Original	Black decal	8" x 3" - Black
SZ000117	12112	12112 for red augers	19-1/2" x 4-1/2" Silver
SZ000118	12112	12112 for white augers	19-1/2" x 4-1/2" Red
SZ06135	CAUTION	Moving parts hazard	6-1/2" x 6-1/2" - White, Yellow
SZ06136	DANGER	Contact with moving parts	4-1/2" x 5" - White, Red

Safety Decals on the Farm King 12112 / 12122 Backsaver Auger



Decal # SZ06010

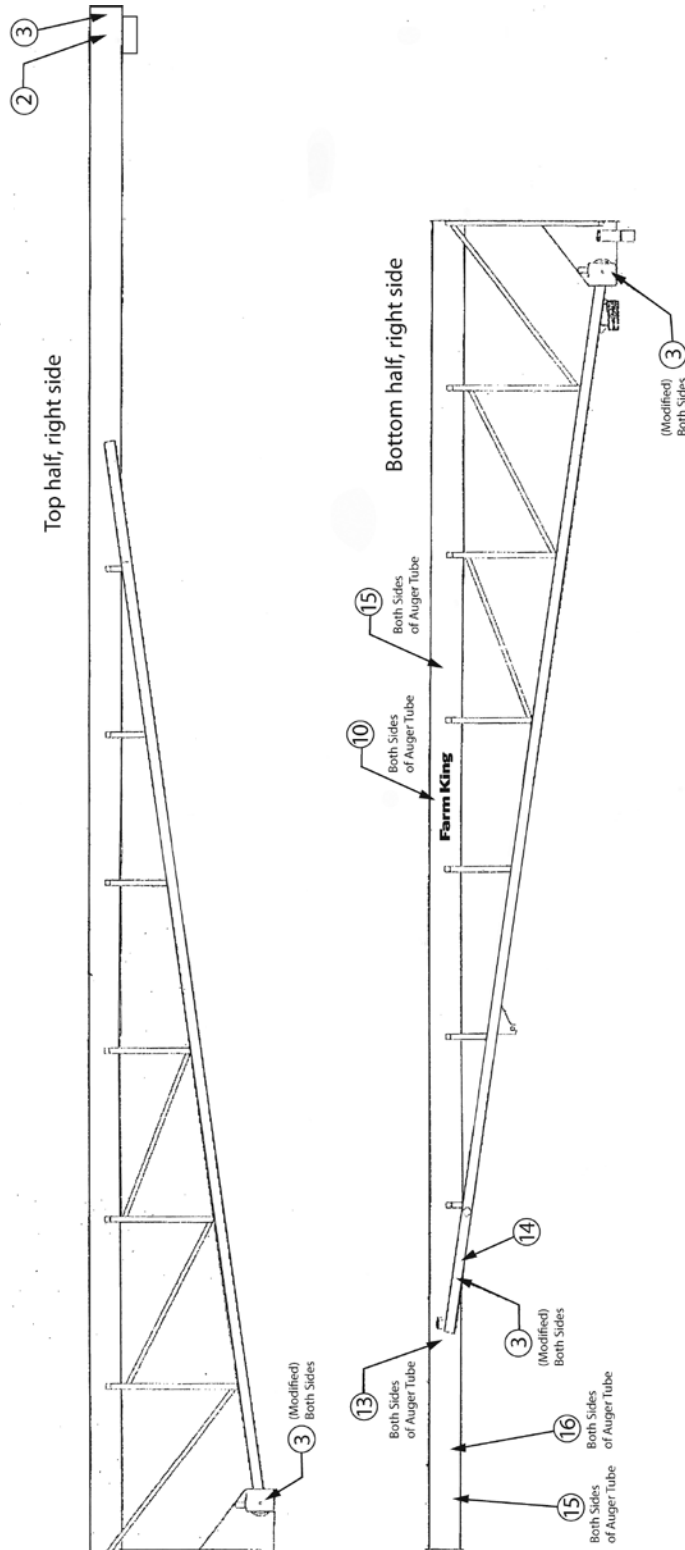


Decal # SZ06011

Safety Decals on the Farm King 12112 / 12122 Backsaver auger

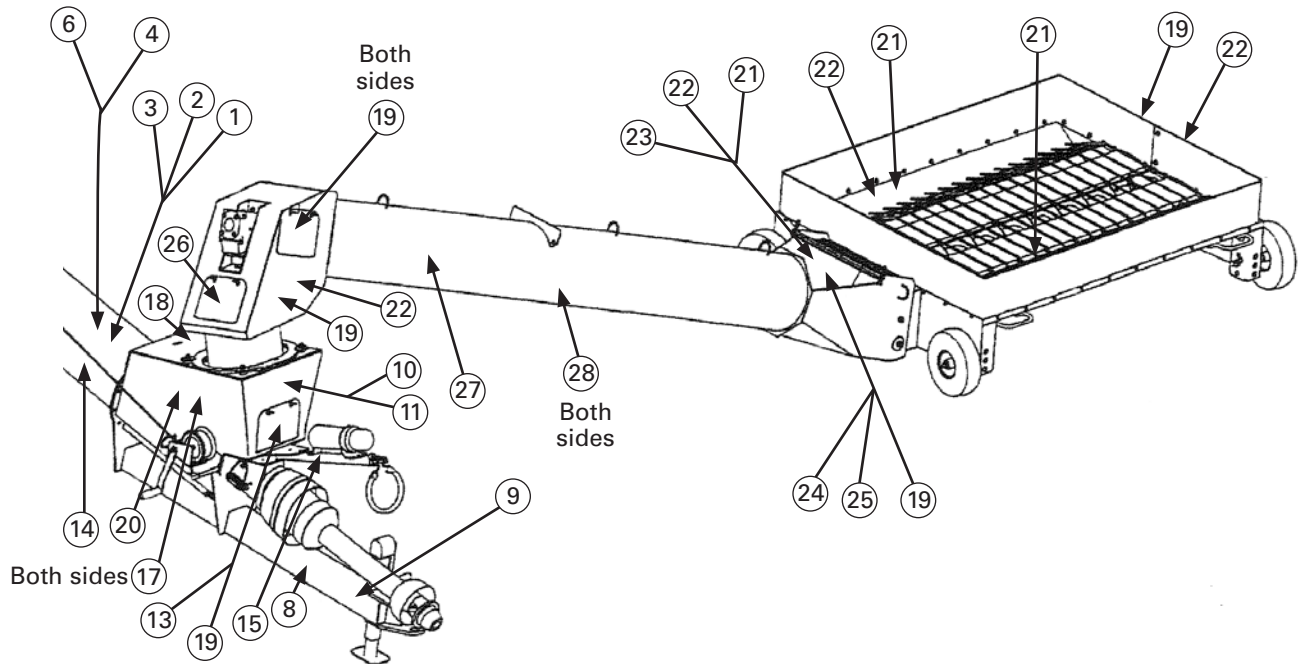


Safety and Instruction Decal placement – Main auger body



Item #	Part #	Description	Qty.
2	SZ06051	DANGER – Rotating Flighting	1
3	SZ06023	WARNING – Contact with moving parts	7
10	SZ000110	FARM KING logo for white augers	2
	SZ000113	FARM KING logo for red augers	2
13	SZ06017	NOTICE – Raising or lowering the auger with blocked or trapped wheels	2
14	SZ06052	NOTICE – Auger Worm Winch - wrap cable (modified)	1
15	SZ000111	Logo - 12122 for white augers	2
	SZ000117	Logo - 12112 for red augers	2
	SZ000118	Logo - 12112 for white augers	2
	SZ000114	Logo - 12122 for red augers	2
16	SZ000116	Feterl Original	2

Safety and Instruction Decal placement – Drive/Hopper section



Item #	Part #	Description	Qty.
1	SZ06010	Do not operate the unit before reading the operator's manual	1
2	SZ06018	Do not operate when empty during break-in period	1
3	SZ06051	DANGER – Rotating Flighting	1
4	SZ06527	DANGER – Electrocution Hazard	1
6	SZ06001	Made in the USA	1
8	SZ06021	WARNING – This auger transports over-height	1
9	SZ06528	NOTICE – Do not tow over 20 mph	1
10	SZ06080	IMPORTANT – The flighting thrust load must be carried	1
11	SZ06055	NOTICE – The IID should be disconnected	1
13	SZ06057	Grease gun silhouette	1
14	SZ06049	WARNING – Hydraulic Operation	1
15	SZ06026	WARNING – Use 3/8" Grade 5 shear bolt	1
17	SZ06133	IMPORTANT – An operator's manual is furnished	2
18	SZ06135	Moving parts hazard	1
19	SZ06136	DANGER - Contact with moving parts	6
20	SZ06049	WARNING - Hydraulic Operation	1
21	SZ06023	WARNING – Contact with moving parts	3
22	SZ06057	Grease gun silhouette	4

Safety and Instruction Decal placement – Hopper

Item #	Part #	Description	Qty.
23	SZ06018	NOTICE – Do not operate when empty during break-in period	1
24	SZ06011	WARNING – Contact w/rotating flighting & moving parts	1
25	SZ06078	NOTICE – Avoid over feeding	1
26	SZ06112	NOTICE – Gear box must be checked for proper oil level	1
27	SZ06109	WARNING – Crush Hazard (Included with Powered Wheel kit)	1
28	SZ000113	FARM KING logo for red hoppers	2

Specifications

The Farm King 12112 / 12122 Backsaver Auger has different length options. Before inquiring about the auger or ordering parts, check the auger serial number located on the second upright on the lower truss support. The auger serial number must be used at the time of parts ordering to ensure that the correct parts are being ordered.

POWER SOURCE (TRACTOR) REQUIREMENTS:

1. Type 3 Power Take-off 540 RPM - 1-3/8" 6-spline
 2. Horsepower 112' auger requires 110 hp minimum
122' auger requires 120 hp minimum
- (These requirements will change depending on grain type, grain moisture & auger elevation)

3. Hydraulic requirements 1500 PSI Minimum
1 remote outlet standard
Optional hopper lift system requires 1 remote outlet
Optional powered wheel system requires 1 remote outlet
(Closed center conversion kit to open center available, SZ384937)

TRANSPORT INFORMATION:

DO NOT TOW over 32 km/h (20 mph). Faster speeds may cause premature failure to Hub, Tires, & Bearings.

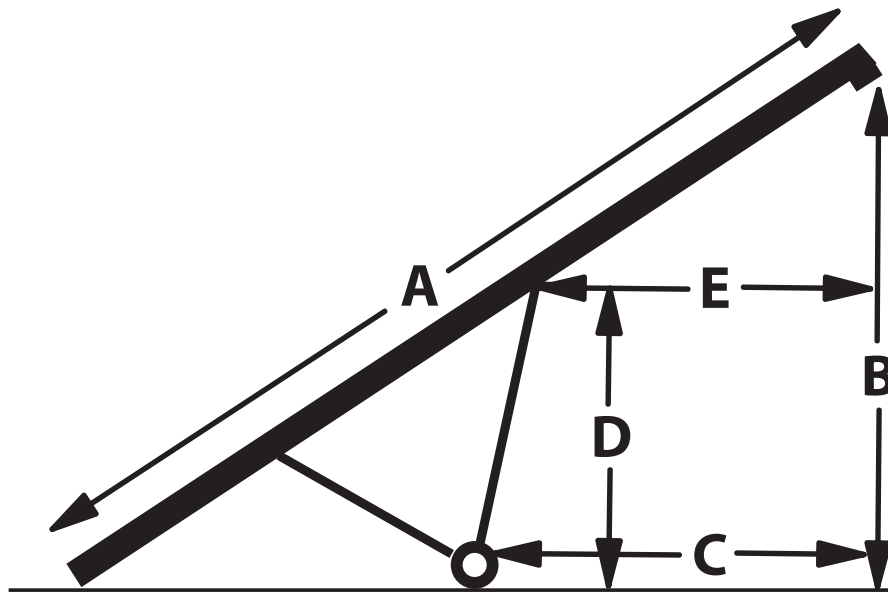
	TRANSPORT HEIGHT		WHEEL TRACK	
	<u>15" Hitch Height</u>	<u>42" Hitch Height</u>	<u>W/O Extension</u>	<u>W/Extension</u>
12112	16'-3"	14'-0"	10'-10"	14'-7"
12122	16'-3"	14'-0"	10'-10"	14'-7"

(Transport height is figured to the highest point without axle extension)

- Up to 8,000 bushels per hour in dry corn
- Tube made from 12 ga.
- Flighting rolled from 1/4" strip
- Hopper 60" x 48". Adjustable clearance heights of 10-3/4", 12-1/4" or 13-3/4"

Auger Height & Reach

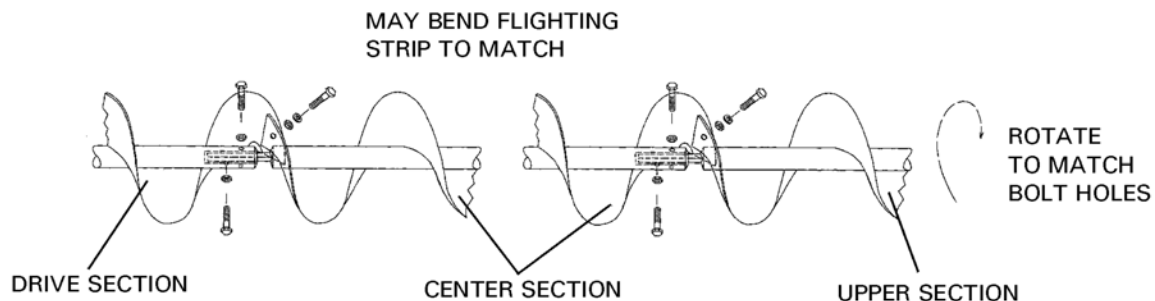
Size of auger	A	B		C		D		E	
		19°	Max.	19°	Max.	19°	Max.	19°	Max.
12112 CSW	112'	38' 1"	65' 7"	43' 2"	63' 7"	23' 6"	30' 9"	33'	41' 7"
12122 CSW	122'	41' 4"	65' 10"	56' 9"	50' 8"	24' 5"	30' 6"	39' 2"	47' 7"



Assembly Instructions

One must use extreme caution when assembling this auger. Two lifting devices (i.e. loader tractor, forklift, etc.) are required as well as various wrenches and tools. Assemble the auger on a flat surface. Right, left, front and back refer to looking at the auger from the intake end.

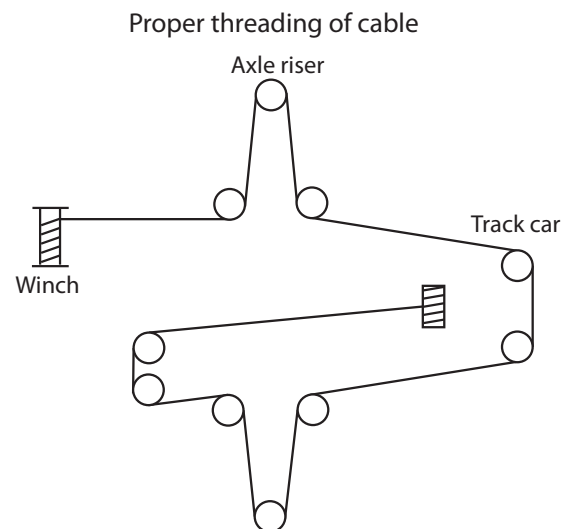
1. Attach axle extensions (Ref. # 49) to the front undercarriage arms (Ref. # 54) using 5/8"x 2" bolts and locknuts. NOTE: the axle extensions cannot be used when transporting the auger on public roads but must be used when the auger is raised to increase the stability of the auger. If towing before raising the auger, bolt the spindle and hub assemblies (Ref. # 49) directly to the front undercarriage arms, otherwise bolt the spindle and hub assemblies to the axle extensions. Mount the wheels (Ref. # 68) onto the spindle and hub assemblies.
2. Position the lower truss (Ref. # 3) on top of the undercarriage assembly using a 1-1/4" x 29-5/8" pin (Ref. # 32) and two 1/4" x 2" cotter pins and two 1-1/4" x 10 ga washers.
3. Position the lower tube (Ref. # 1) into the lower truss section. On the 12112 models make sure the half-clamp (Ref. # 33) is set into the hopper lift mount before the tube is set down into the cradles of the lower trussing. Align the 2 tubes and leave them 2' apart. Install the lower 2 pieces of flighting, and slide them together carefully so the core does not get bent. Make sure the lower flighting overlaps the upper flighting, and twist the flighting until the holes in the core line up. Bolt the flighting cores together using two 1/2" x 3-1/2" fine threaded bolts and locknuts. Using a 3/8" x 7/8" socket head bolt and locknut, bolt the two flighting strips together.



4. Slide the tubes together until the flange rings meet. Install the bolts through the truss connection channel on the auger tube, the truss and the "L" shaped truss adjustment bar (Ref. # 34) on the outside of the lower end of the truss. Install the bolts on both sides but leave them loose.
5. Install the flange ring bolts to hold the 2 tubes together and tighten them in a crossing pattern to evenly pull the flange rings together using twelve 1/2" x 1-1/2" bolts and locknuts. Lift on the tube in the proper spots so the tube is straight and install the half clamps (Ref. # 33) and twelve 3/8" x 1-1/2" bolts and locknuts with 24 3/8" flat washers to hold the tube tight into the cradle, starting at the top of the lower tube and working down. As you tighten the bolts make sure the tube is straight. Install the threaded rod and nuts connecting the "L" shaped truss adjustment bar to the tube, and tighten the nuts. Tighten the bolts through the truss connection channel on the auger tube, the truss and the "L" shaped truss adjustment bar.
6. Position the drive section in line with the lower tube and install the drive section flight and attach it to the lower flight as in step 3. Then install and tighten the bolts connecting the flange ring of the lower tube to the drive section.

7. Attach the rear undercarriage (Ref. # 55) to the axle using two 1-1/4" x 5-7/8" pins. Secure each pin with a 1-1/4" washer and a 1/4" x 2" cotter pin. Mount the track car to the undercarriage arms using a 1-1/4" x 40-1/4" pin and two 1-1/4" washers and two 1/4" x 2" cotter pins.
8. Position the upper truss section in line with the lower truss section and attach the flights, then slide the two truss sections together and install the bolts in the truss splice plates. Make sure you support the top end of the auger as it may become unstable and tip over backwards.
9. Line up the top tube with the upper trussing and bolt the discharge flighting to the upper flighting. Slide the tubes together until the flange rings meet. Install the bolts through the truss connection channel on the auger tube, the truss and the "L" shaped truss adjustment bar (Ref. # 34) on the outside of the upper end of the truss. Install the bolts on both sides but leave them loose.
10. Install the flange ring bolts to hold the 2 tubes together and tighten them in a crossing pattern to evenly pull the flange rings together. Lift up on the tube in the proper spots so the tube is bowed up approximately 1'. Then lift the trussing section up to match the tube, and install the half clamps to hold the tube tight into the cradle starting at the bottom of the lower tube and working up. As you tighten the bolts make sure the tube is straight left to right and bowed up. Install the threaded rod and nuts connecting the "L" shaped truss adjustment bar to the tube, and tighten the nuts. Tighten the bolts through the truss connection channel on the auger tube, the truss and the "L" shaped truss adjustment bar.
11. Ensure all the half clamps are tight and slowly let the weight of the tube down. If the tube is not bowed up slightly, loosen up the half clamps and adjustment bolts, lift up some more, and re-tighten everything until the top tube is slightly bowed up, as it will come down slightly when it is filled with grain.
12. Slide the flighting onto the splined shaft on the drive section gearbox. **12112:** Attach the discharge spout (Ref. #25) by sliding the flight shaft through the 1-1/2" bearing (Ref. #26). Connect the discharge spout to the tube using 1/2" x 1-1/2" bolts and locknuts. Thread the 1-1/2" nut (Ref. # 119) onto the top shaft until there is approximately 1/4" of splined shaft showing on the drive section gear box. Then set the setscrew and tighten the 3/8" nut to keep the 1-1/2" nut in place, and tighten the setscrews on the bearing. **12122:** When attaching the discharge spout, bolt the truss flange ring anchor (Ref. #159) to the discharge spout using the 1/2" x 1-1/2" bolts and locknuts. Attach the eyebolt truss anchors (Ref. #165) to the square tubing of the upper trussing using 5/8" x 3-1/2" bolts, washers and locknuts (Ref. #164, #166 & #167) with the flat washers to the inside. Install the 5/8" x 6-1/2" eyebolts in the anchor bars and turn the 5/8" nuts on a couple of turns by hand. Install the truss support bracket (Ref. #162) using two 1/2" x 1" bolts and locknuts (Ref. #116 & #147). Install two 3/8" cable clamps in the top of the truss riser with the U-bolt portion sticking through the top plate and the 3/8" x 42' cable threaded through. Leave the clamp loose enough that the cable can slide freely for now. Loop the lower end of the cables through the eyebolts and fasten securely with 2 clamps per cable and a thimble (Ref. #117 & #161). Leave the cable double back about 18" and install on clamp approximately 1" from the end and the other as close to the thimble as possible. Be certain that the U-bolt portion of the clamps is in contact with the short end of the cable. With the truss support approximately vertical, pull the cables tight and fasten them to the truss flange ring anchor (Ref. #159) using the same method as fastening them to the eyebolts. Once this is complete, snug the cable up a little by tightening the eyebolts, then check that the truss support is approximately vertical, and tighten the cable clamps. Once all the clamps are tightened, tighten up the eyebolts until the auger tube has a slight bow up. **NOTE:** This cable may need to be re-tightened after operating or towing the auger.

13. Bolt the axle risers to the axle using ten 5/8" x 4-1/2" bolts and locknuts. Attach the L shaped eyebolt anchors (Ref. # 35) to the axle risers and insert the eyebolts of the 1/4" cable assemblies (Ref. # 36) through anchor bars with the double nuts just started on the eyebolts. Insert 1/4" cable thimbles into the anchor points on the undercarriage arms and string the cables through and clamp them back on themselves. Tighten the eyebolts until the axle risers are approximately square with the axle, and lock the double nuts together.
14. Assemble the track car nylon slide bushings into the track car guides using 1/8" x 1" cotter pins. The cotter key must be to the outside of the guide. Next attach the track car to the upper truss by bolting the track car guides on using eight 1/2" x 1-1/2" bolts and locknuts.
15. Before installing the Braden Winch motor, place winch on clean surface with the cap located toward the top. Remove bolts and cap. **NOTE:** Be careful not to tear the gasket or spill the oil. Wipe the surface clean and apply gasket maker (LOCTITE 598 black high performance RTV silicone gasket maker or equivalent). Make a continuous bead around the surface, and around the bolt holes. Line up keyway with key and carefully slide motor in and re-install the bolts that were removed.
16. Attach the hydraulic winch assembly (Ref. # 56) to the lower truss by using four 5/8" x 2" bolts, locknuts, and flat washer combinations. Connect hydraulic motor to winch. Connect 90° swivel elbows to the winch. String the hydraulic hoses (Ref. # 57) through the round hose loops welded to the lower tube and fasten them to the swivel elbows installed in the motor on the worm winch.
17. Thread the 3/8" lift cable (Ref. # 38). Begin by fastening the cable to the winch assembly; making sure the cable comes over the top side of the winch drum to give it proper clearance. Thread the cable between the tube (Ref. #3) and the pivot pin (Ref. #32). Thread the cable along the left side of the auger first, through the sheave on the tube undertruss, up over the sheave on the riser assembly, and then back through the next sheave on the tube undertruss, up to the track car, around and through the sheaves to the right side of the auger. Come back down to the first sheave on the tube undertruss, then up over the sheave on the riser assembly and back down to the next sheave on the tube undertruss. Next thread the cable around the sheaves in the middle of the tube undertruss and back to the track car. Anchor the cable around the vertical pin in the car with two 3/8" cable clamps (Ref # 117). Be sure to install the clamps with the U-bolt portion contacting the short tail of the cable for maximum holding.
18. Mount the "STOP LIFT" sign (Ref. #26). Clamp the flag assembly on the left side of the auger to the first undertruss riser after the center splice on the top auger section. Use two flat straps and four 3/8" x 3" bolt, nut, and lockwasher combinations. Fasten the extension spring and adjust the flag so it will catch the flat bar on the top of the track car guides. The "STOP LIFT" sign will swing out, when properly adjusted, when maximum height has been reached.



19. Mount the Implement Input Driveline (IID) shaft (Ref # 67) to the lower gear box (Ref # 14) with 1/4" x 2-1/4" spiral pin (Ref # 129), and a 5/16" x 1-3/4" square key (Ref # 128). Tighten setscrew on IID. Mount the IID hanger (Ref # 23) with 3/8" x 1" bolts and locknuts (Ref # 122 & 123). Hang IID from hanger with rubber strap (Ref #130). CAUTION: Before removing lifting devices, anchor the intake end. At this stage of assembly, the auger may overbalance and the discharge end will fall to the ground.
20. Line up the hopper CV joint (Ref # 77) with the hopper discharge flighting (Ref # 87) and attach with 3/8" x 3" bolt and locknut (Ref # 137 & 123). Connect the hopper tube (Ref # 86) to the hopper body (Ref #89) with 1/2" x 1-1/2" bolts, 1/2" locknuts and 1/2" flat washers (Ref # 115, 116, & 132). Attach the hopper access door (Ref # 76). Install belting (Ref # 127) with 1/4" x 3/4" bolts, flat washers, and locknuts (Ref # 148, 149 & 150). Mount the hopper wheels (Ref # 126) with 3/4" x 8-3/4" pins & bushings (Ref # 75 & 143).
21. Attach the hopper head assembly (Ref # 79) to tube with two hopper head swivel plates (Ref # 78) and six 1/2" x 1-1/2" bolts and 1/2" locknuts (Ref # 115 & 116).
22. Install bushings on the inlet pivot ring. Set hopper on drive section by putting discharge head into pivot ring and attaching with 1/2" locknuts (Ref # 116). Install the hopper power shaft (Ref # 74) between the gearboxes (Ref # 14 & 81) using a 3/8" x 3" bolt and locknut (Ref # 137 & 123) on top, and a 5/16" x 3" bolt and locknut on the bottom. NOTE: BE SURE TO MOUNT THE HOPPER POWER SHAFT WITH THE OUTER HALF TO THE UPPER GEAR BOX. The hopper can be mounted on either side of the auger. Close access door (Ref # 11) and keep in place during operation. Hopper height may be adjusted by removing hairpin (under hopper) from hopper wheel axle (Item # 75). Then remove hopper wheel axle from socket and reinstall in alternate socket.
23. Mount the winch (Ref # 72) to quick switch hopper winch mount (Ref # 73) 1/2" x 1-1/2" bolts and 1/2" locknuts (Ref # 115 & 116). This winch can be mounted on either side of the auger. Thread the hopper lift cable (Ref # 71) through the swing over arm and attach to winch. The cable hook is attached to the hook located on the outside of the hopper for transporting. Raise and lower hopper to ensure proper operation. Attach the transport safety cable (Ref # 131) with 1/8" hairpin and 1/2" flat washer (Ref # 92 & 132).

Operating Instructions

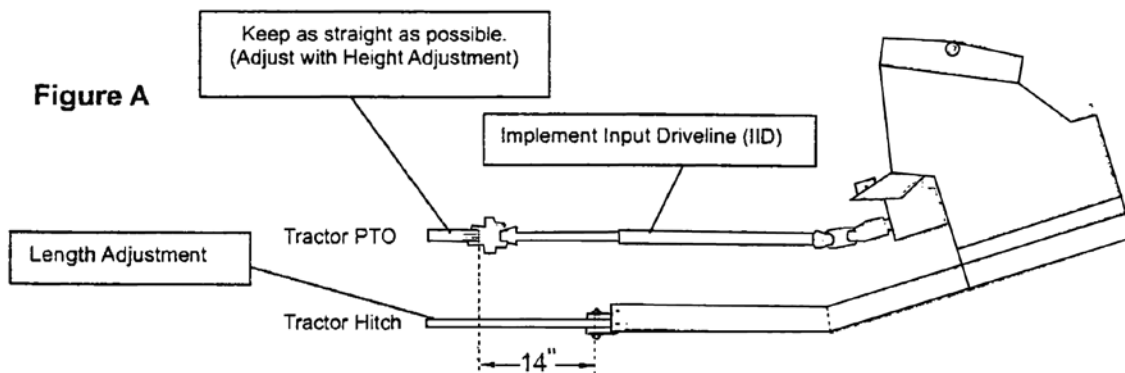
Farm King Portable Grain Augers are designed primarily to convey grain to and from grain storage bins or buildings. This machine must have a break-in period with different operating conditions than for normal use. The tube and flighting must get a polished surface through use. Once the new auger has polished (some need 20 bushels and some need several hundred bushels) it will run smooth at recommended speed. The tractor and/or auger must have the correct adjustments made to prevent damage to either the tractor or auger.

Tractor-to-Auger Adjustment

These instructions must be followed every time a different tractor is attached to the auger.

1. Adjust the tractor until the distance from the end of the tractor PTO shaft to the hitch pin is 14" (see figure A).
2. Hitch the tractor to the auger and attach the IID to the tractor. If the IID is not approximately mid-range of the telescoping range, further drawbar length adjustment may be necessary.
3. It is essential to inspect your drive before adding power.
4. Do not open the grain gate on hopper bottom trailers fully as force-feeding may occur, causing an overload condition with possible damage to the unit.
5. **DO NOT OPERATE AT SLOW PTO SPEED UNLESS THE FLOW OF GRAIN IS ALSO REDUCED.** (See Troubleshooting on page 32 and 33).
6. After completing the transfer of grain, run the unit until the grain has been emptied from it.

HITCH ADJUSTMENT



CAUTION

It is important to adjust your hitch. Figure A is your guide to proper hitch adjustment. Improper adjustment can cause damage and/or excessive wear on U-joint assemblies.



NOTICE

The shielding has been removed in the illustration for parts demonstration only. Install all shielding before operating the unit.

The tractor should be positioned to the auger so that the distance from the end of the tractor PTO shaft is 14" from the hitch pin. Use tractor drawbar length adjustment. This is so the Implement Input Driveline does not bottom out when the auger is raised to maximum position. Vertical adjustment is a trial and error process. The goal is to have an equal angle on the IID U-joints in the operating position.

The IID should be disconnected from the tractor while positioning the auger, otherwise physical damage may result to the IID or auger.

The result of improper hitch adjustment is breaking the ball inside the CV joint. Bending in excess of 50° on the CV joint will also break the ball inside the CV joint. Constant angle applications require more frequent greasing. See page 29 and 30 for proper greasing procedures.

**NOTICE**

5/16" x 3" Grade 5 shear bolt is located on the Hopper Input Driveline.

**CAUTION**

Using other than a specified grade shear bolt may result in damage to drive components.

Break-in Period

1. During the break-in period run the tractor at slow idle until grain begins to flow from the discharge. For the first 500 bushels, operate at the slow speed and restrict the flow of grain at the intake. Gradually increase the speed until operating at full PTO speed. **DO NOT RUN EMPTY DURING BREAK-IN PERIOD.**
2. After the break-in period always operate at PTO speeds between 500 and 540 RPM. **NEVER** run tractor at slow idle when full feeding the auger. **DO NOT OPERATE WHEN EMPTY AS UNNECESSARY WEAR OCCURS.**

Moving Instructions

1. Connect the hydraulic hoses to the tractor, raise/lower the auger to clear any obstructions.
2. Raise the hopper into transport position before moving the auger.
3. Remove the implement input driveline (IID) from the tractor whenever moving the auger. Failure to do this every time may cause damage to the CV joint in the IID.
4. Only transport the auger in the fully down position.
5. Do not tow over 20 MPH (32 k/h).

Operating Recommendations



WARNING

DO NOT OPERATE THE AUGER EMPTY FOR EXTENDED PERIODS. If the auger is run empty at 540 RPM for more than **20 seconds** at a time, damage to the auger may occur. This is a shorter interval than is normally experienced between trucks, and/or different truck compartments. Slowing the tractor during this time is helpful, but damage may still occur. The auger **MUST** be stopped or damage may occur. This damage may result in the auger vibrating and shaking at various PTO speeds. Once this damage has occurred, replacement of both the tube and flight is necessary.



WARNING

DO NOT START OR STOP THE AUGER AT MAXIMUM PTO SPEED. Start and stop the auger at reduced PTO speed (approximately 250 RPM) to minimize shear bolt failure caused by sudden starts and stops.



WARNING

DO NOT OPERATE AT REDUCED PTO SPEED WHEN FULL FEEDING THE AUGER. This will cause excessive stress on the auger and may result in excessive shear bolt failures and/or plugged auger and/or damage to the auger drive components.



WARNING

AVOID OVER FEEDING OR PLUGGING. Shear bolt failure indicates an overload on the auger. Verify that the correct PTO speed (500 - 540 RPM) is maintained during maximum capacity. Wet grain requires more power. Restricting flow of wet grain at the intake may be necessary to prevent shear bolt failure.



WARNING

AVOID FORCE-FEEDING THE HOPPER. Do not open the grain gate on hopper bottom trailers fully causing a force-feed situation. Force-feeding will overload the hopper, causing possible damage to the hopper and/or auger.



WARNING

EMPTY THE AUGER OF GRAIN BEFORE STOPPING. Failure to empty the auger will cause excessive stress on the auger and may result in excessive shear bolt failures and/or plugged auger and/or damage to the auger drive components.



WARNING

DISCONNECT THE IMPLEMENT INPUT DRIVELINE (IID) FROM THE TRACTOR BEFORE MOVING THE AUGER. Physical damage may occur. Common damage is breaking the ball from the centering device on the IID, requiring replacement.


DANGER

ALWAYS DISCONNECT THE WINCH HYDRAULIC HOSES FROM THE TRACTOR AFTER THE AUGER IS RAISED OR LOWERED TO THE DESIRED POSITION. Accidental movement of the tractor hydraulic control valve may cause damage and/or personal injury.


WARNING

ALWAYS RAISE THE HOPPER BEFORE MOVING THE AUGER. Dragging the hopper may cause damage.


WARNING

REPLACE SHEAR BOLTS ONLY WITH SPECIFIED SIZE AND GRADE. When the specified size and grade of shear bolt shears, it is the operator's warning that an extreme condition exists, normally requiring a reduction of flow into the intake hopper. **Replacing with a higher grade bolt may result in damage to the drive components.**


WARNING

THE HOPPER POWERED WHEEL IS NOT DESIGNED TO PUSH GRAIN, ROCKS, DIRT, ETC. WHEN IN USE. The area the hopper moves over must be reasonably clear of all obstructions. If the wheels spin or the hopper "stalls out", this is an indication that there is an obstruction to the hopper movement.

Maintenance - Main Auger Shear Bolt

12" Backsaver augers use a **5/16" x 3" grade 5 shear bolt** with located on the Hopper Input Driveline.

- **REPLACE SHEAR BOLT ONLY WITH SPECIFIED SIZE AND GRADE.** When the specified size and grade of shear bolt shears, it is the operator's warning that an extreme condition exists, normally requiring a reduction of flow into the intake hopper. **Replacing with a higher grade bolt may result in damage to the drive components.**

Shear bolt failure indicates an overload on the auger. Verify that the auger is started and stopped at reduced PTO speed (approximately 250 RPM). Verify that the correct PTO speed (540 RPM) is maintained during maximum capacity. Wet grain requires more power. Restricting flow of wet grain at the intake may be necessary to prevent shear bolt failure. Check for foreign objects (sacks, cans, rags, etc.) in the tube. Objects may go part way up the tube and wedge between the flights, blocking the grain flow.

Maintenance - Lubrication

Speed Reducing (Lower) Auger Gear box:

- Check before initial use. Gear box is filled at factory but leakage may occur during shipment.
- Check annually and every 50 hours of use
- Maintain oil level to sight gauge (overfilling will cause excessive temperatures)
- **Use only high temperature synthetic oil**
 - ◇ Mobil1 SAE 75W-90 or equivalent
- Change lube annually
- 120 oz. Capacity

Hopper (Upper) Gear box:

- Check before initial use. Gear box is filled at factory but leakage may occur during shipment.
- Check annually and every 50 hours of use
- Maintain oil level to 1/2 full (check plug on side of gear case.)
- **Use SAE 90 gear lube**
- Change lube annually
- 18 oz. Capacity

Hopper Chain Case:

- Located at the end on the hopper
- Use common gun grease
- Maintain level below lower bearing
- Add 8 oz. annually

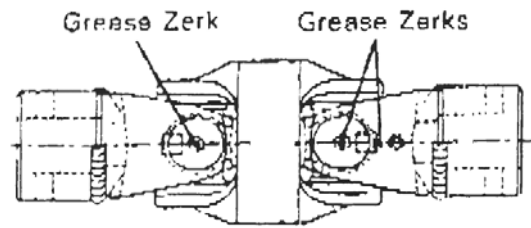
Hopper Hanger Bearings:

- Four (4) grease zerks
- Located on the pivot end of the hopper side flight (1 on each side)
- Located on hopper center flight (access on intake mesh)
- Located on discharge tube flight by access door
- **Eight (8) hour maximum interval between lubrication**
- **Use common gun grease**

Maintenance – Lubrication (continued)

Hopper Flight U-joint:

- Two (2) grease zerks
- Located by hopper center flight (access through intake mesh)
- Located on discharge tube flight (access through access door)
- **Eight (8) hour maximum interval between lubrication**
- **Use common gun grease**



TRACTOR TO AUGER IMPLEMENT INPUT DRIVELINE (IID) [PTO SHAFT]:

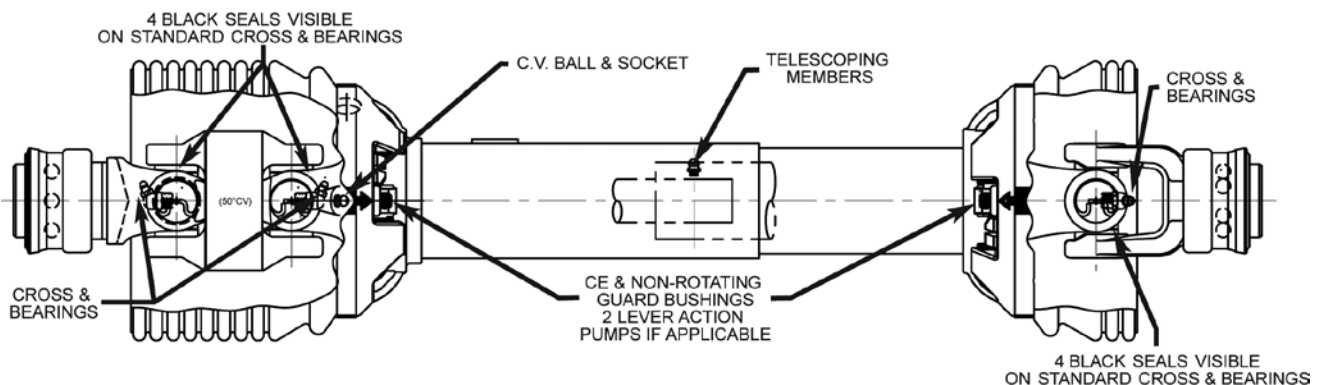
12" Backsaver Augers use an Implement Input Driveline (IID) with four (4) grease zerks. Three (3) of the zerks are located on the CV joint on the implement end of the IID and one (1) is located on the U-joint on the tractor end. Lubricate the IID every 8 hours with NLGI #2 E.P. grease containing no more than 1% molybdenum disulfide. NLGI #2 E.P. grease containing no more than 3% molybdenum disulfide may be used on the telescoping and CV ball and socket members only.

- **REPLACEMENT PARTS MUST BE LUBRICATED AT TIME OF ASSEMBLY AND DURING USE PER THE LUBE RECOMMENDATIONS**

INTERVAL	LOCATION	AMOUNT
50 HRS	Extended Lube Cross & Bearing (Orange seals not visible)	2-3 Lever Action Pumps
8 HRS*	Standard Cross & Bearings (Black seals)	2-3 Lever Action Pumps
8 HRS	Telescoping Members (50 HRS. Hardened Spline)	8-10 Lever Action Pumps
8 HRS*	CV Ball & Socket	4-6 Lever Action Pumps
50 HRS**	Non-Rotating Guard Bushings (1000 RPM Max.)	2 Lever Action Pumps

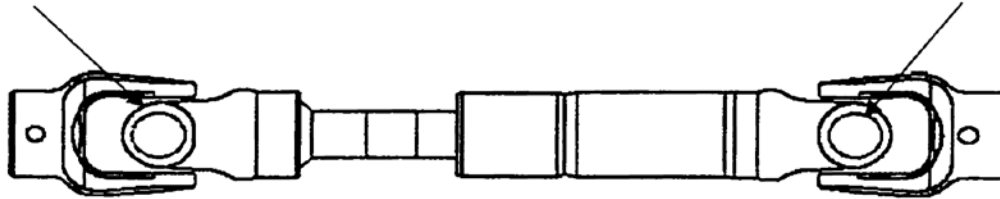
*CONSTANT ANGLE APPLICATIONS MAY REQUIRE A LUBE INTERVAL OF 4 HOURS

**HIGH SPEED MAY REQUIRE A LUBE INTERVAL OF 8 HOURS



INTERNAL POWER SHAFT:

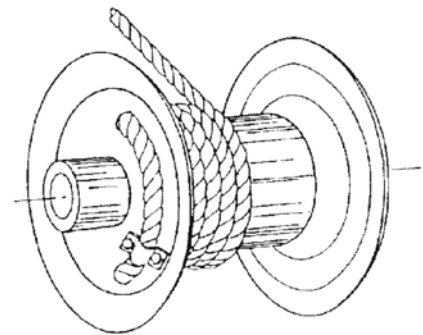
- 12" Backsaver Augers use a power shaft between the two gear boxes. The grease zerks need to be lubricated every 8 hours with NLGI #2 E.P. grease containing no more than 1% molybdenum disulfide.



HYDRAULICALLY DRIVEN WORM WINCH:

All main lift winches on 12112 and 122' models should be checked for proper oil level at the start of every season and if oil leakage is occurring. Oil level, fill, and drain plugs are all located on the winch. (see picture below)

- Maintain at least five full wraps of cable on the winch drum.
- Check cable annually for kinks or sharp bends. Replace cable if kinks, fraying or strand breaks are found.
- Verify that cable clips and cable clamps are properly installed.
- Be sure that the cable on the winch is a diameter and type as furnished (3/8" 7x19) to support the load to be lifted.



ALWAYS KEEP A MINIMUM OF 5 WRAPS AROUND THE DRUM

GEAR BOX OIL LEVEL

To check the oil level, remove the Level Plug located as shown. The oil should be level with the bottom of this opening. If more oil is needed, use the recommended gear oil listed below.

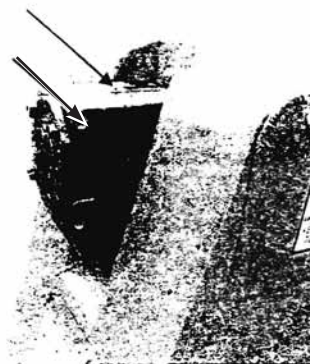
OIL CHANGE INFORMATION

The winch Vent/Fill and Drain Plugs are located as shown. Oil should be changed after the first 24 hours of operating time. Then the oil should be changed every 100 hours of operating time, or every six months, whichever comes first.

The oil capacity is ½ pint to the bottom of the Level Plug opening; however, with heavy use, up to 2 pints should be used to cool and lubricate the winch properly.

RECOMMENDED GEAR OIL

90W multi-purpose E.P. gear oil meeting API classification GL-S. This type of oil is found at most service stations for use in automotive rear axles.



VENT/FILL PLUG



LEVEL PLUG

DRAIN PLUG

Troubleshooting

1. **EXCESSIVE AUGER VIBRATION.** Some vibration is normal when the auger is in operation. If the auger is shaking and/or “jumping up and down”, these are the common causes.
 - a. **Improper break-in of the auger.** If the tube and flight were not allowed to break-in and polish each other correctly, the tube and/or flighting may be damaged (the flight edge is very rough and the tube inside is rough and gouged). Once this damage has occurred, replacement of the flighting and/or tube is necessary.
 - b. **Running Auger Empty.** If the auger is run empty between trucks and/or different truck hoppers, damage to the tube and/or flighting may occur (similar to improper break-in). Once this damage has occurred, replacement of the flighting and/or tube is necessary.
 - c. **Bent Auger Flighting.** If a “banging” noise is detected in one area, remove the flighting from the tube and inspect for straightness. A common procedure is to put the flighting on a concrete floor, roll the flighting and observe the area in question. If a bend is detected, straighten the flight and re-install.
 - d. **Improper PTO Speed.** If the auger is not being operated at 540 RPM PTO speed when full feeding the intake hopper, shaking is likely. Operate at 540 RPM PTO speed to correct this problem. On some specific augers, shaking will occur at 540 RPM PTO speed but not at slightly slower speed. Slowing to 440 RPM PTO speed may correct the shaking.
2. **EXCESSIVE SHEAR BOLT FAILURE.** The shear bolt is used to prevent damage to the auger by limiting the amount of torque. A shear bolt works well when a shock load is transmitted, but a slow, smooth overload will also shear the bolt. These are the common causes for excessive shear bolt failure.
 - a. **Starting or Stopping the Auger at Maximum PTO Speed.** Start and stop the auger at reduced PTO speed (250 RPM) to minimize shear bolt failure caused by sudden starts and stops.
 - b. **Reduced PTO Speed When Full Feeding the Intake Hopper.** Reducing the PTO speed requires a higher torque to be transmitted through the shear bolt. The shear bolt limits the amount of torque, and the slower the PTO speed, the higher the torque required.
 - c. **Overloading the Intake Hopper.** A force-feed situation will overload the hopper and/or auger. A common force-feed situation is opening the gate on a hopper bottom truck completely. Avoid any force-feed situations.
 - d. **Starting the Auger Under Load.** If the auger is not emptied before being stopped, an excessive amount of torque is required to start the auger.
 - e. **Wet Grain.** Wet grain requires more power to move than dry grain. Reduce the rate of flow into the intake hopper. In some situations, partially covering the intake area with boards, sheet metal, cardboard, etc. is extremely effective. The amount of coverage depends upon grain moisture content, type of grain, type of unloading situation, etc.
3. **PLUGGING THE AUGER.** These are some of the most common causes of auger plugging.
 - a. **Reduced PTO Speed When Full Feeding the Intake Hopper.** This will cause the intake hopper to overload and then overload the main auger.
 - b. **Overloading the Intake Hopper.** A force-feed situation will overload the hopper and/or auger. A common force-feed situation is opening the gate on a hopper bottom truck completely.
 - c. **Foreign Objects in the Auger.** Rags, sacks, cans, tools, etc. in the grain will go part way up the tube and wedge into place or restrict the grain flow.
 - d. **Wet Grain.** Wet grain requires more power to move than dry grain and will pack into a semi-solid mass. Reduce the rate of flow into the intake hopper.
 - e. **Snow or Ice in Grain.** When the grain moisture, grain temperature, outside temperature and outside humidity reach certain combinations, unexplainable plugging occurs. This occurs most often when ice or snow are present in the grain. Reducing the rate of flow into the intake hopper seems to be the only solution.

f. **Grain build-up under the spout** from an over-filled bin should cause the optional relief discharge to open. Snow or ice mixed with grain during difficult harvest seasons can cause relief discharge to freeze and fail to function. Check this frequently when operating under such conditions.

g. **When the flighting will not turn:**

- check to see if a foreign object is present,
- check to see if the bin is over-filled,
- check to see if the grain is wet,

You should remove the flighting and check it. Also check the flighting connection for damage to be sure the lower half flighting laps the upper half flighting. See the diagram on the assembly instructions (page 21).

A rare and unexplainable plugging can occur when temperatures, humidity and moisture content of the grain reach a certain level, along with ice or snow. Under these conditions, sometimes the auger will freeze. Then placing in an environment above 32° F (0° C) may loosen the auger. Most of the time when the auger plugs due to these conditions, it plugs so tight you may damage the auger clearing it. Pliers, pipe wrenches, chains and patience are necessary to clear the machine. Problems seem to be greater when operating in snow or ice. The only solution seems to be limiting intake by covering some of the intake hopper.

A partially plugged auger will require excessive amounts of horsepower.



NOTICE

If you hear any unusual noises after the initial break-in period, you should remove the flighting and inspect it.

Do not run the auger when empty, as unnecessary wear occurs.

4. **CAPACITY PROBLEMS.** Wet grain, high degree of elevation, slow PTO speed, trash in the grain, how and where the intake hopper is being loaded, etc. are all factors that will reduce the actual capacity from the rated capacity of the auger.
5. The most frequent problem is created by the operator who does not read or heed this sign (#06018) that is placed on the tube just below the gear box on every new auger.

NOTICE

DO NOT OPERATE WHEN EMPTY DURING BREAK-IN PERIOD

Run tractor at very slow idle until grain begins to flow from discharge. Do not full feed the intake for the first 500 bushels. Increase the speed on a very gradual basis. When operated with electric drives, it may be necessary to use a start-stop procedure to prevent the auger from reaching full speed, until grain has begun to flow from discharge.

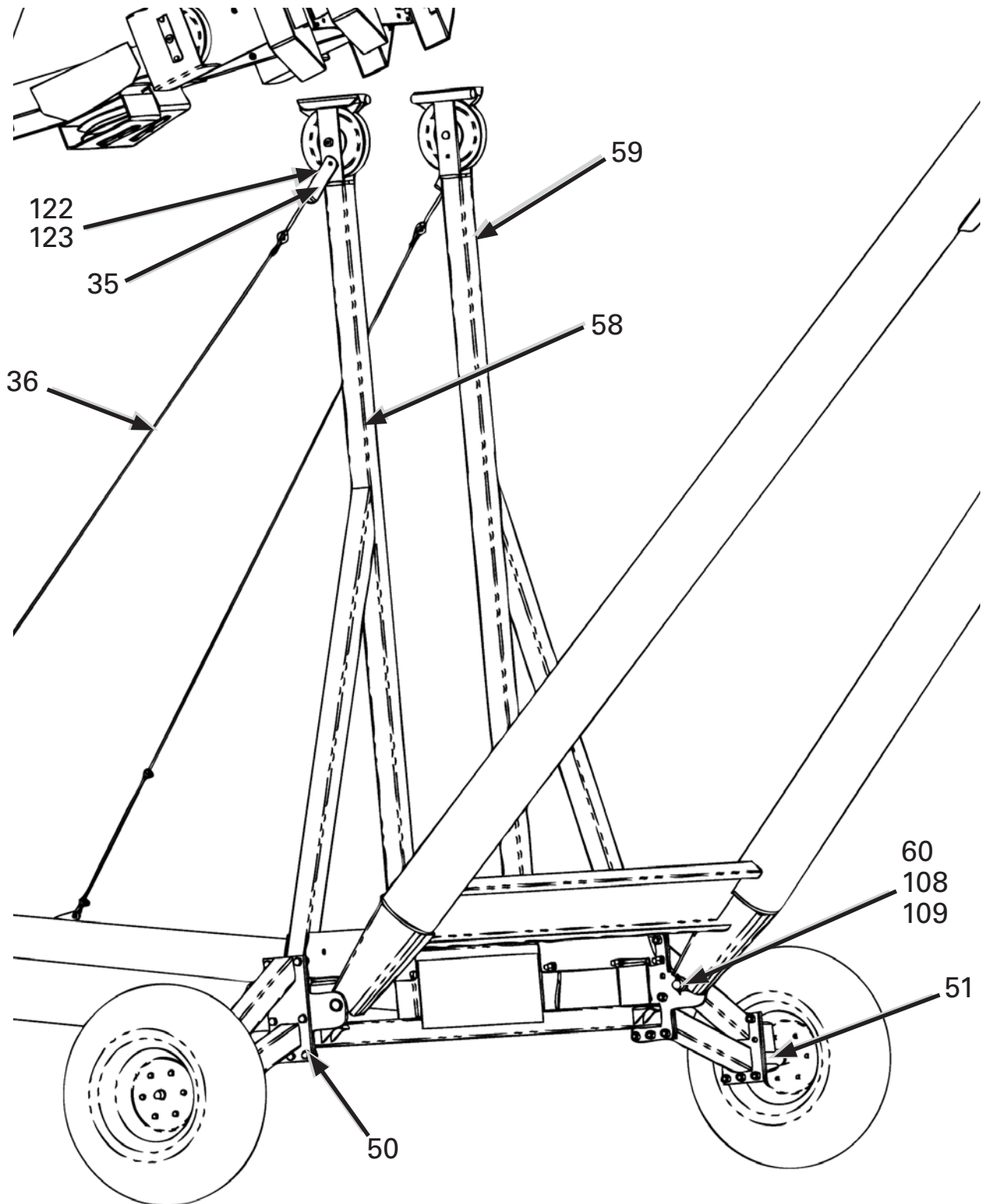
AFTER BREAK-IN

Never run tractor at slow idle when full feeding auger.
The PTO speed should be between 500 and 540 RPM
when using at maximum capacity.

DO NOT OPERATE WHEN EMPTY AS UNNECESSARY WEAR OCCURS

06018

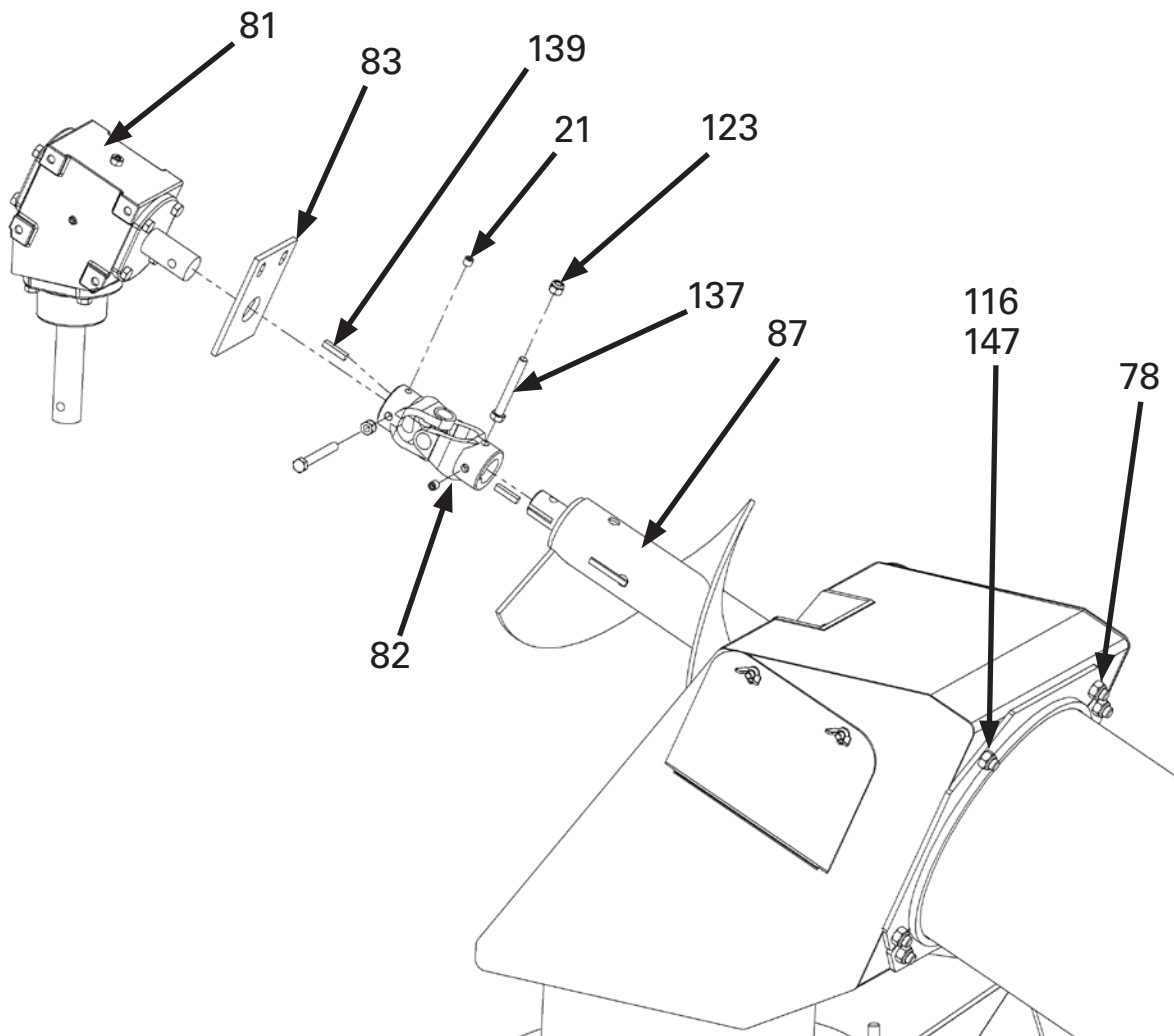
Description: Axle Risers



Description: Axle Risers

Item#	Part #	Description	Qty. 12112	Qty. 12122
35	SZ103293	Anchor Truss FRMD Eyebolt	2	2
36	SZ103295	ASSY Cable 1/4 Eyebolt	2	2
50	SZ0211302	Axle Extension Weldment	2	2
51	SZ990211248008	3/4" x 13/16" Nylon Wear Button	4	4
58	SZ102605	WLDT Axle Riser RH	1	1
59	SZ103924	WLDT Axle Riser LH	1	1
60	SZ0216319	1-1/4" x 5-5/8" Pin	2	2
108	SZ6001420	Pin Cotter 1/4 2	6	6
109	SZ0231250	BSHG MACH 1-1/4 10GA	6	6
122	SZ126065	BLT HHCS 3/8-16UNC 1 G5	32	32
123	SZ125030	Nut Lock 3/8-16UNC Nylock	35	35

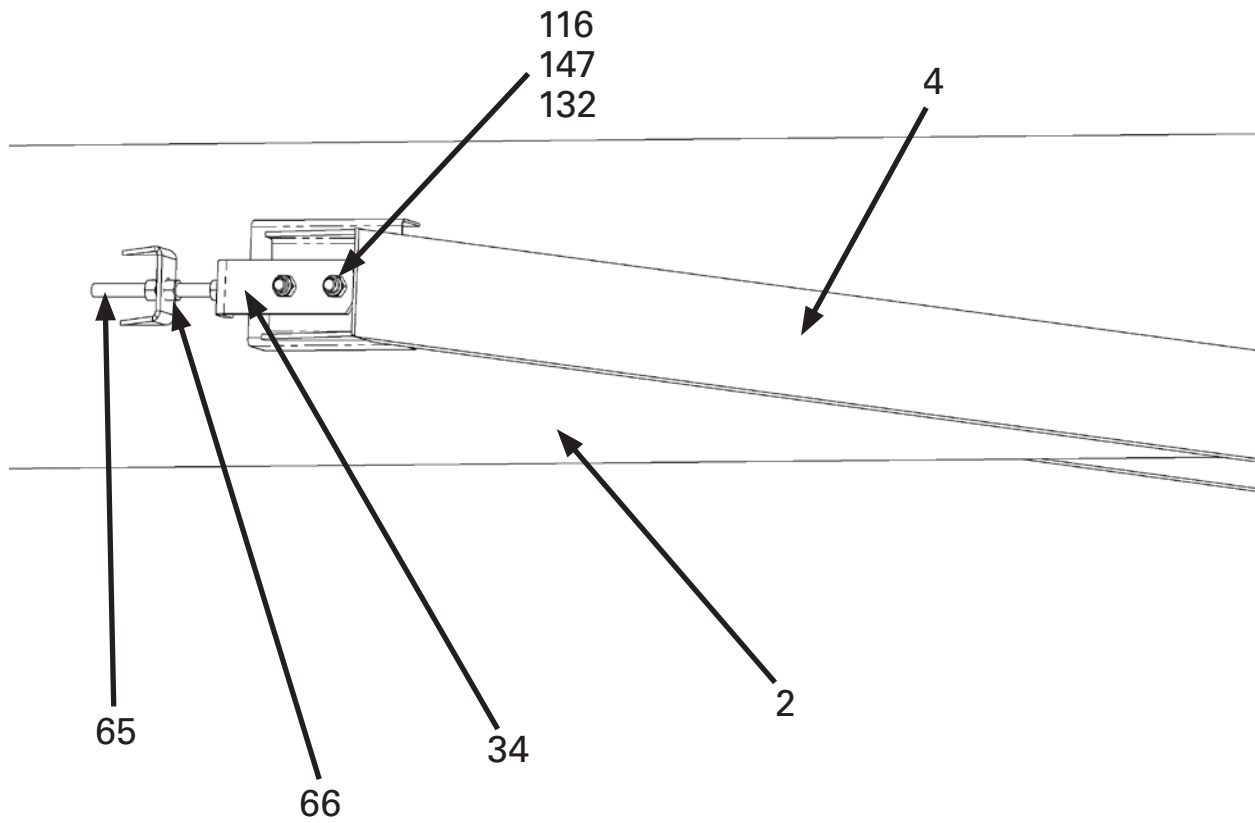
Description: Hopper Head Gearbox



Description: Hopper Head Gearbox

Item#	Part #	Description	Qty. 12112	Qty. 12122
21	SZ128041	SSCR 3/8-16UNC 3/8 CP KNRL	3	3
78	SZ9901981	12" HPR Head Swivel Plate	2	2
79	SZ9902531	Hopper Head Assembly	1	1
81	SZ0160100	Gearbox HPR Drive – 2001	1	1
82	SZ1001604	12N U-JOINT 1-1/4" X 1-1/4"	1	1
83	SZ9902534	HPR Gearbox Seal	1	1
84	SZ127001	Flat Washer 5/16	2	2
87	SZ9902393	WLDT Flight 12" Discharge	1	1
116	SZ125032	Nut Lock 1/2-13UNC Nylock	95	95
123	SZ125030	Nut Lock 3/8-16UNC Nylock	35	35
137	SZ126076	BLT HHCS 3/8-16UNC 3 G5	4	4
139	SZ01125118	KEY SQ 1/4 1.19	2	2
147	SZ126089	BLT HHCS 1/2-13 UNC 1 G5	8	8

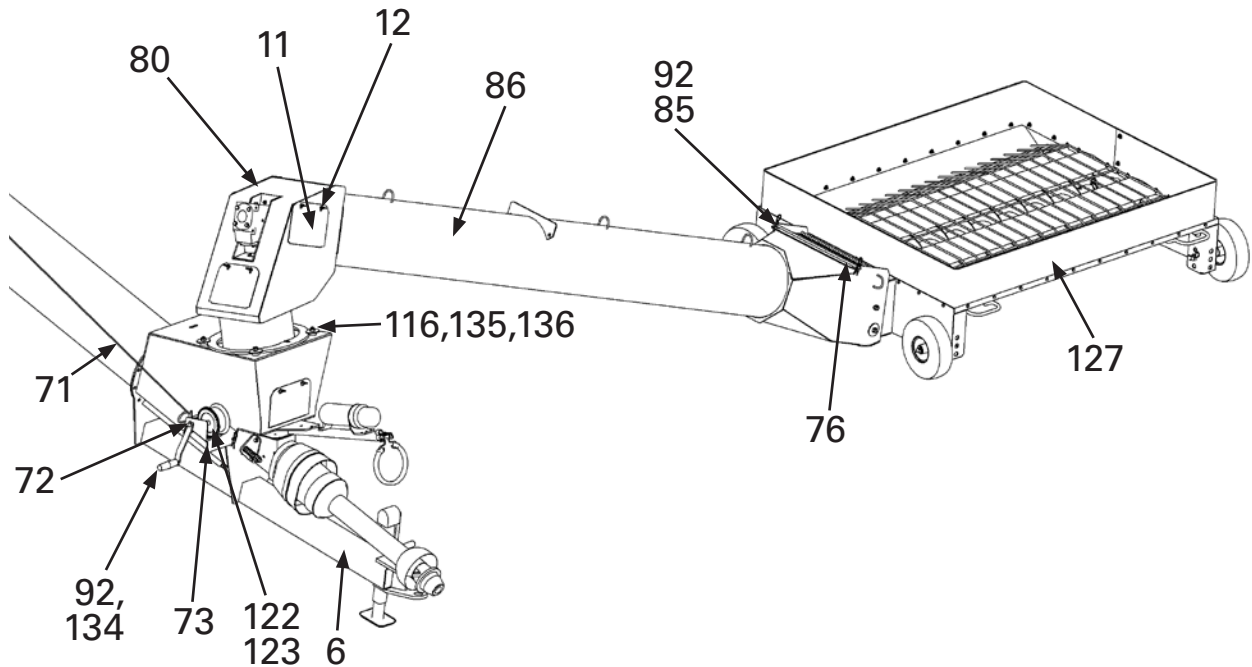
Description: Truss Adjustment



Description: Truss Adjustment

Item#	Part #	Description	Qty. 12112	Qty. 12122
2	SZ103516	WLDTTBG 12 GSW 300 DSCHG	1	–
–	SZ103515	WLDTTBG 12 GSW 360 DSCHG	–	1
4	SZ102482	WLDTTBG 12 TRUSS 396 UPR	1	1
34	SZ21274121	Bar Truss Adjustment	4	4
65	SZ9901381	ROD THD 1/2-13UNC 6.5	4	4
66	SZ125010	Nut Hex 1/2-13UNC	16	16
116	SZ125032	Nut Lock 1/2-13UNC Nylock	95	95
132	SZ127003	WSHR FLT 1/2	12	12
147	SZ126089	BLT HHCS 1/2-13 UNC 1 G5	8	8

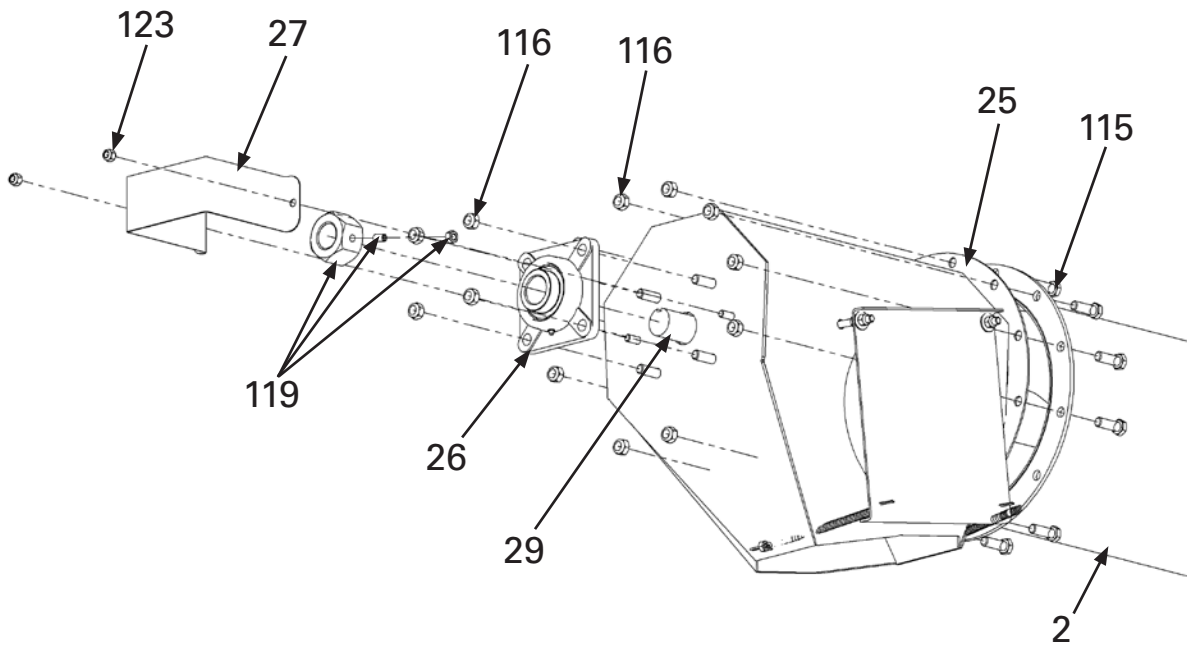
Description: Drive Section and Hopper



Description: Drive Section and Hopper

Item#	Part #	Description	Qty. 12112	Qty. 12122
6	SZ104492	WLDT 12" Drive Section	1	1
11	SZ9902289	Drive Section Access Door	4	4
12	SZ125040	Nut Wing 5/16-18UNC	8	8
71	SZ0213235	ASSY CBL 3/16 x 19 420 GRABHOOK	1	1
72	SZ2038221B	12" Quick Move HPR Winch	1	1
73	SZ9901480	HPR Winch Plate	1	1
76	SZ9902449	12" HPR Access Door WELD	1	1
80	SZ9901979	HPR HEAD WELDT	1	1
85	SZ9902475	12" HPR Access Door Pin	1	1
86	SZ101824	WLDT TBG HPPR DSCHG 12"	1	1
92	SZ128018	Pin Hair 1/8	8	8
116	SZ125032	Nut Lock 1/2-13UNC Nylock	95	95
122	SZ126065	BLT HHCS 3/8-16UNC 1 G5	32	32
123	SZ125030	Nut Lock 3/8-16UNC Nylock	35	35
127	SZ102637	EXT Flex 12" HPPR 8.00 214.01	1	1
134	SZ128012	Pin CLVS 1/2 6	1	1
135	SZ9941718	WSHR FLT .53 2.25 10GA GALV	6	6
136	SZ9902517	TBG RND 1-3/16 11/32 .50 PLTD	4	4

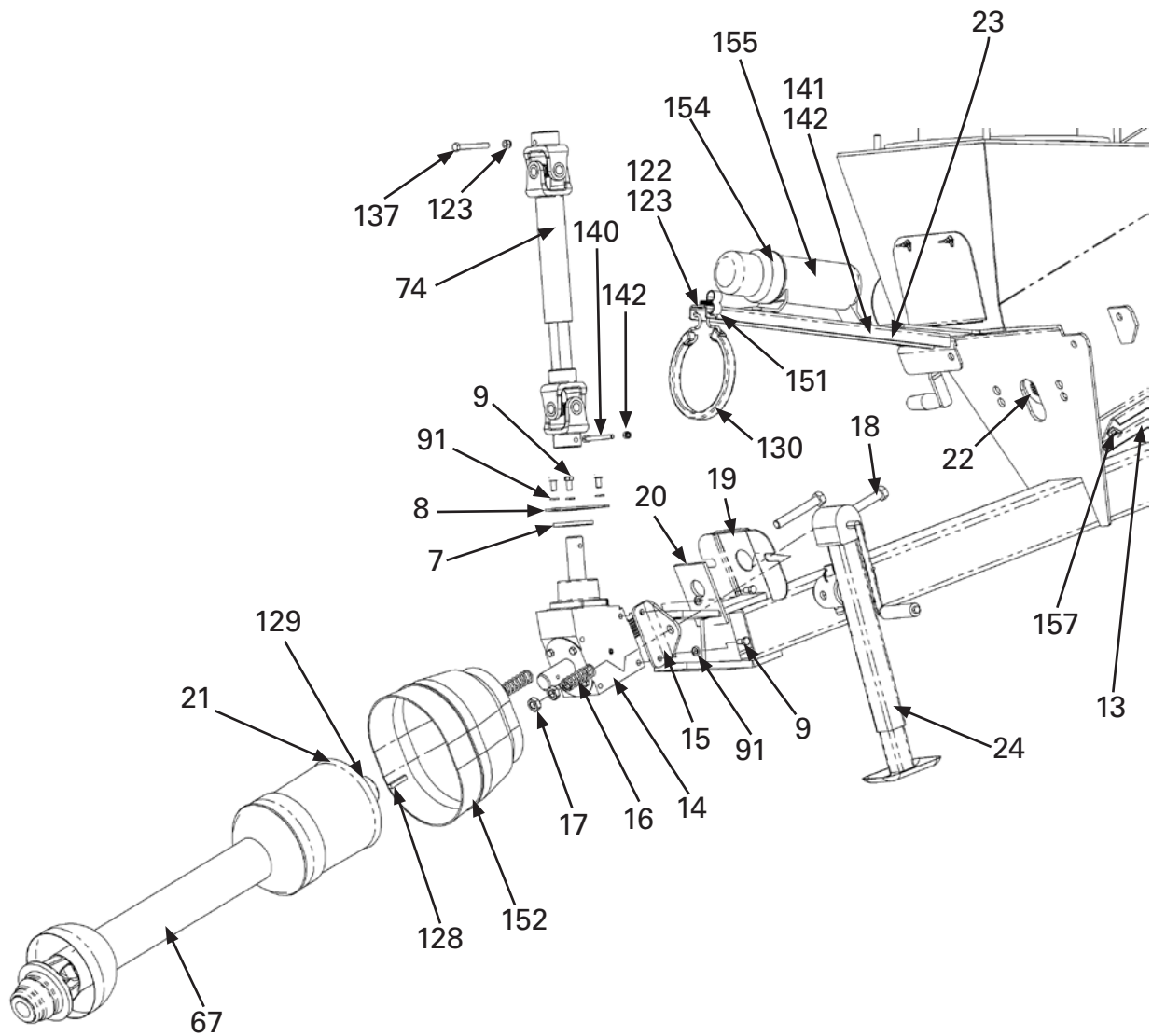
Description: Discharge Spout



Description: Discharge Spout

Item#	Part #	Description	Qty. 12112	Qty. 12122
2	SZ103516	WLDT TBG 12 GSW 300 DSCHG	1	–
–	SZ103515	WLDT TBG 12 GSW 360 DSCHG	–	1
25	SZ101696	ASSY Discharge Spout 12" W/RELIEF	1	1
26	SZ2011053	Bearing 1-1/2" 4-BOL T CAST FL	1	1
27	SZ2127212	ASSY Shield Cap Head	1	1
29	SZ9902383	Flight 12" DIA - 30' Discharge	1	1
115	SZ126092	BLT HHCS 1/2 -13 UNC 1 -1/2 G5	89	89
116	SZ125032	Nut Lock 1/2 – 13UNC Nylock	95	95
119	SZ6001050	1-1/2" NC Hex Nut w/ 3/8 Set	1	1
123	SZ125030	Nut Lock 3/8-16UNC Nylock	35	35

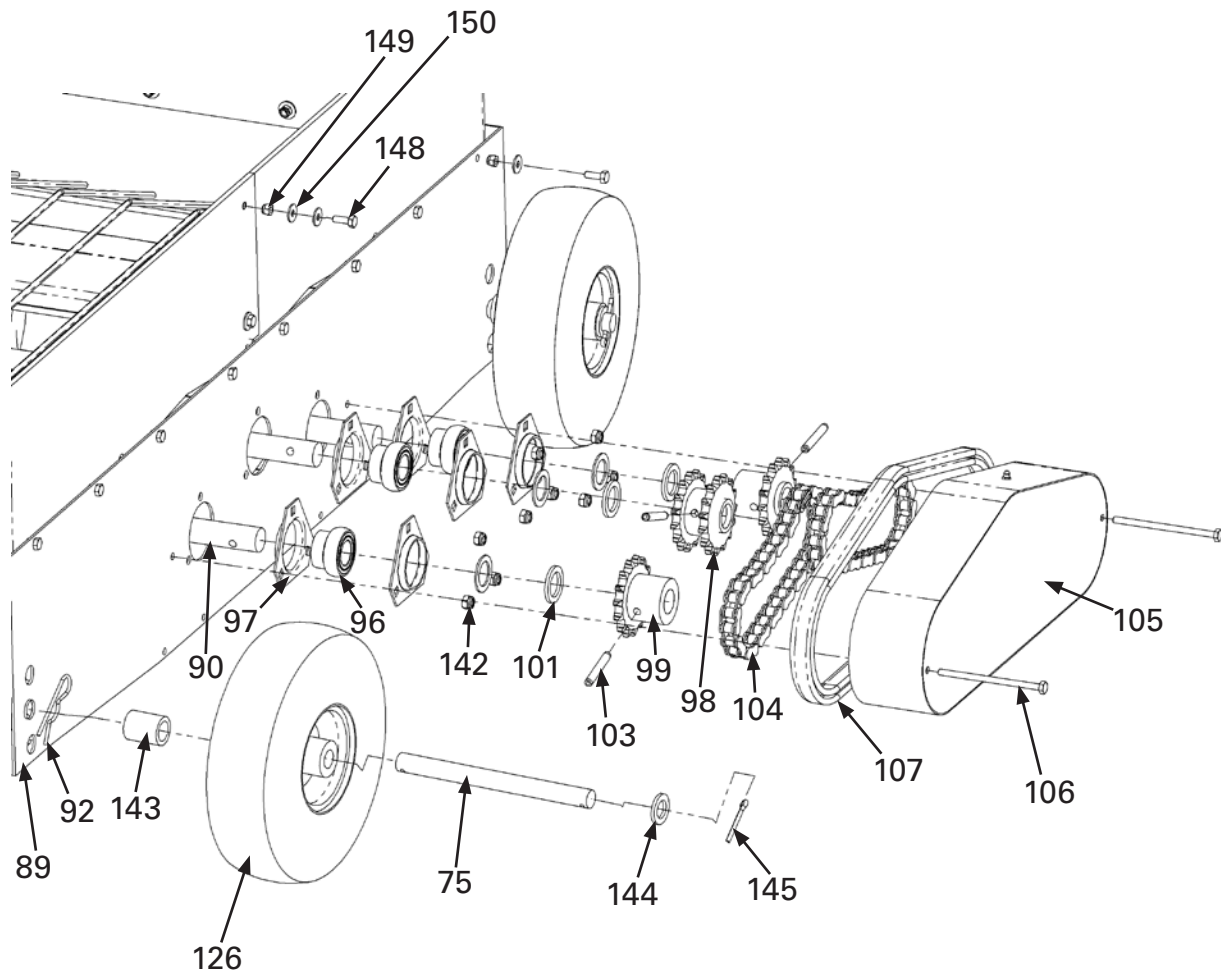
Description: Drive Section Assembly



Description: Drive Section Assembly

Item#	Part #	Description	Qty. 12112	Qty. 12122
5	SZ9902336	12" Drive Section Assembly	1	1
7	SZ104489	WSHR FLT 1.28 3.25 NYL	1	1
8	SZ9902601	Shield Drive Section Grain	1	1
9	SZ126063	BLT HHCS 318-16UNC 3/4 G5	7	7
13	SZ100381	Cover Drive Section Lower	2	2
14	SZ0160112	Gearbox Drive Section - 2001	1	1
15	SZ9902333	Gearbox Mount Bracket	2	2
16	SZ4910190	1" x 3-1/2" Spring (Plated)	2	2
17	SZ125023	Nut JAM 5/8-11 UNC	4	4
18	SZ126118	BLT HHCS 518-11 UNC 4-1/2 G5	10	10
19	SZ9902600	Shield Grain SECT DRV 12GA	1	1
20	SZ105657	Gearbox Lower Seal Plate	1	1
21	SZ128041	SSCR 3/8-16UNC 3/8 CP KNRL	3	3
22	SZ9902384	Flight 12" DIA - Drive Section	1	1
23	SZ103260	CHNL FRMD HNGR PTO CSW	1	1
24	SZ103298	ASSY Jack DL 6620 2000LB 10"	1	1
67	SZ103423	55E 50 DEG CV PWR SFT 40 Clutch	1	1
74	SZ0166020	12N Internal Power Shaft	1	1
91	SZ127009	WSHR LCK 3/8	11	11
122	SZ126065	BLT HHCS 3/8-16UNC 1 G5	32	32
123	SZ125030	Nut Lock 3/8-16UNC Nylock	35	35
128	SZ0113122	KEY SQ 5/16 1.75	1	1
129	SZ60025111	PIN SPL 1/4 2-1/4	1	1
130	SZ91230	Strap, Rubber #509-S W/S-Hook	1	1
137	SZ126076	BLT HHCS 3/8-16UNC 3 G5	4	4
140	SZ126059	BLT HHCS 5/16-18UNC 3 G5	5	5
141	SZ126047	BLT HHCS 5/16-18UNC 1 G5	4	4
142	SZ125035	NUT LCK 5/16-18UNC NYLOCK G5	26	26
151	SZ103259	Clamp Hose Tie-Down	2	2
152	SZ103268	Shield Poly Implement Swing Drive	1	1
154	SZ103296	ASSY Container Manual Owners	1	1
155	SZ102632	Manual Owners 12112 / 12122	1	1
157	SZ125041	Nut Wing 3/8-16UNC	4	4

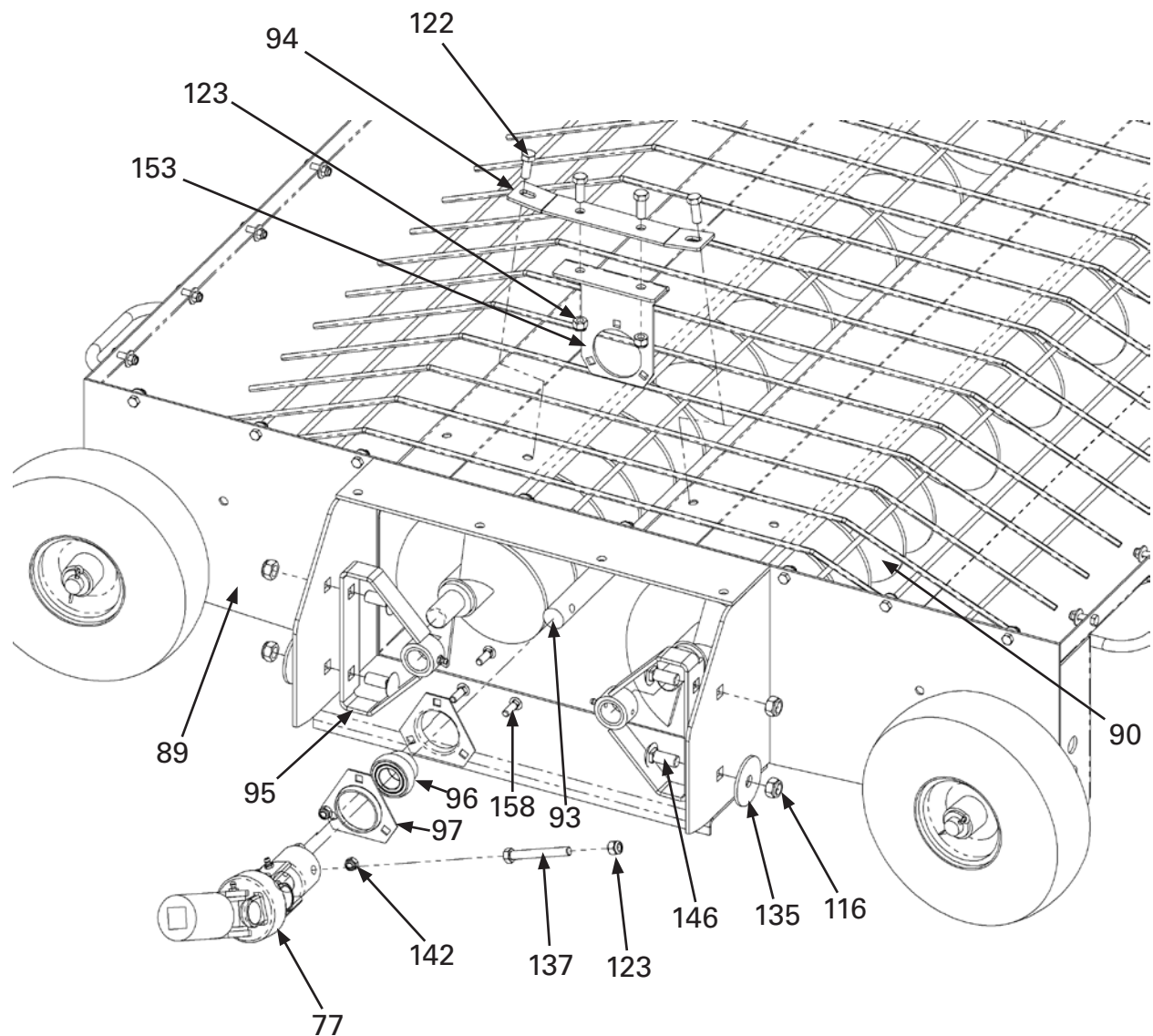
Description: Hopper Chain Case



Description: Hopper Chain Case

Item#	Part #	Description	Qty. 12112	Qty. 12122
75	SZ9901748	HPR WHEEL AXLE	4	4
89	SZ101817	WLDT HPPR BODY 12"	1	1
90	SZ9860013	Flight 12" Hopper 60"	2	2
92	SZ128018	Pin Hair 1/8	8	8
96	SZ2017043	Bearing, 1" w/Loose Lock Collar	4	4
97	SZ65052MSCI000	FLG BRG 52 MM 3 BLT	8	8
98	SZ00425151	12" Internal DR HPR Center Sprocket	1	1
99	SZ00405153	12" Internal DR HPR Side Sprocket	2	2
101	SZ0231110	BSHG MACH 1 10 GA	3	3
103	SZ6001602	Pin SPL 5/16 E	3	3
104	SZ0043534	ASSY Chain RLR #50 34P	2	2
105	SZ9902466	WLDT Shield, 12" HPR Chain	1	1
106	SZ126044	BLT HHCS 1/4-20UNC 4-1/2 G5	2	2
107	SZ68RUB0CHL0SL	Rubber Seal E-3559 Channel	58"	58"
126	SZ3981273	Easi-Roll HPR Wheel	4	4
142	SZ125035	Nut Lock 5/16-18UNC Nylock G5	26	26
143	SZ9901747	TBG RND 1-3/16 3/16 1.5	4	4
144	SZ0237510	BSHG MACH 3/4 1-1/4 10GA	4	4
145	SZ6003531	Pin Cotter 5/32 1-1/4	8	8
148	SZ126029	BLT HHCS 1/4-20UNC 3/4 G5	38	38
149	SZ125028	Nut Lock 1/4-20UNC Nylock	38	38
150	SZ127000	WSHR FLT 1/4	40	40

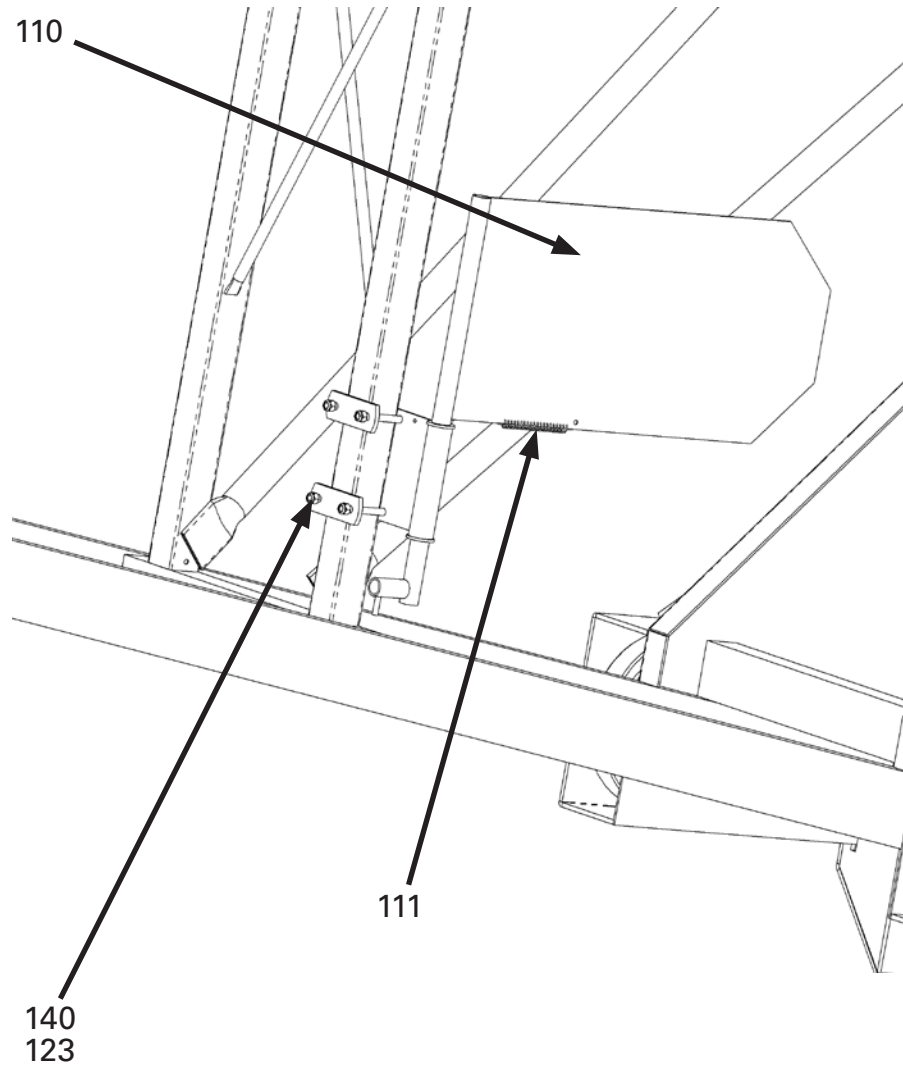
Description: Hopper Hanger Bearings



Description: Hopper Hanger Bearings

Item#	Part #	Description	Qty. 12112	Qty. 12122
77	SZ0165547	6E 50 DEG CV W/15/16 SQUARE	1	1
89	SZ101817	WLDT HPPR BODY 12" HOPPER	1	1
90	SZ9860013	FLIGHT 12" HOPPER 60"	2	2
93	SZ9902434	SFT RND 1 64.5	1	1
94	SZ102638	PLT FRMD MNT BRG HPPR 12 TOP	1	1
95	SZ101820	WLDT HPPR HNDR BRG 12" HOPPER	2	2
96	SZ2017043	BEARING, 1" W/LOOSE LOCK COLLAR	4	4
97	SZ65052MSCI000	FLG BRG 52 MM 3 BLT	8	8
116	SZ125032	NUT LCK 1/2-13UNC NYLOCK	95	95
120	SZ126106	BLT HHCS 1/2-20 UNF 3-1/2 G5	8	8
121	SZ125033	NUT LCK 1/2-20 UNF	8	8
122	SZ126065	BLT HHCS 3/8-16UNC 1 G5	32	32
123	SZ125030	NUT LCK 3/8-16UNC NYLOCK	35	35
135	SZ9941718	WSHR FLT .53 2.25 10GA GALV	6	6
137	SZ126076	BLT HHCS 3/8-16UNC 3 G5	4	4
142	SZ125035	NUT LCK 5/16-18UNC NYLOCK G5	26	26
146	SZ126012	BLT CRG 1/2-13UNC 1-1/4 SHRT N	4	4
153	SZ103292	PLT FRMD MNT BRG HPPR 12 BOT	1	1
158	SZ126007	BLT CRG 5/16-18UNC 1	3	3

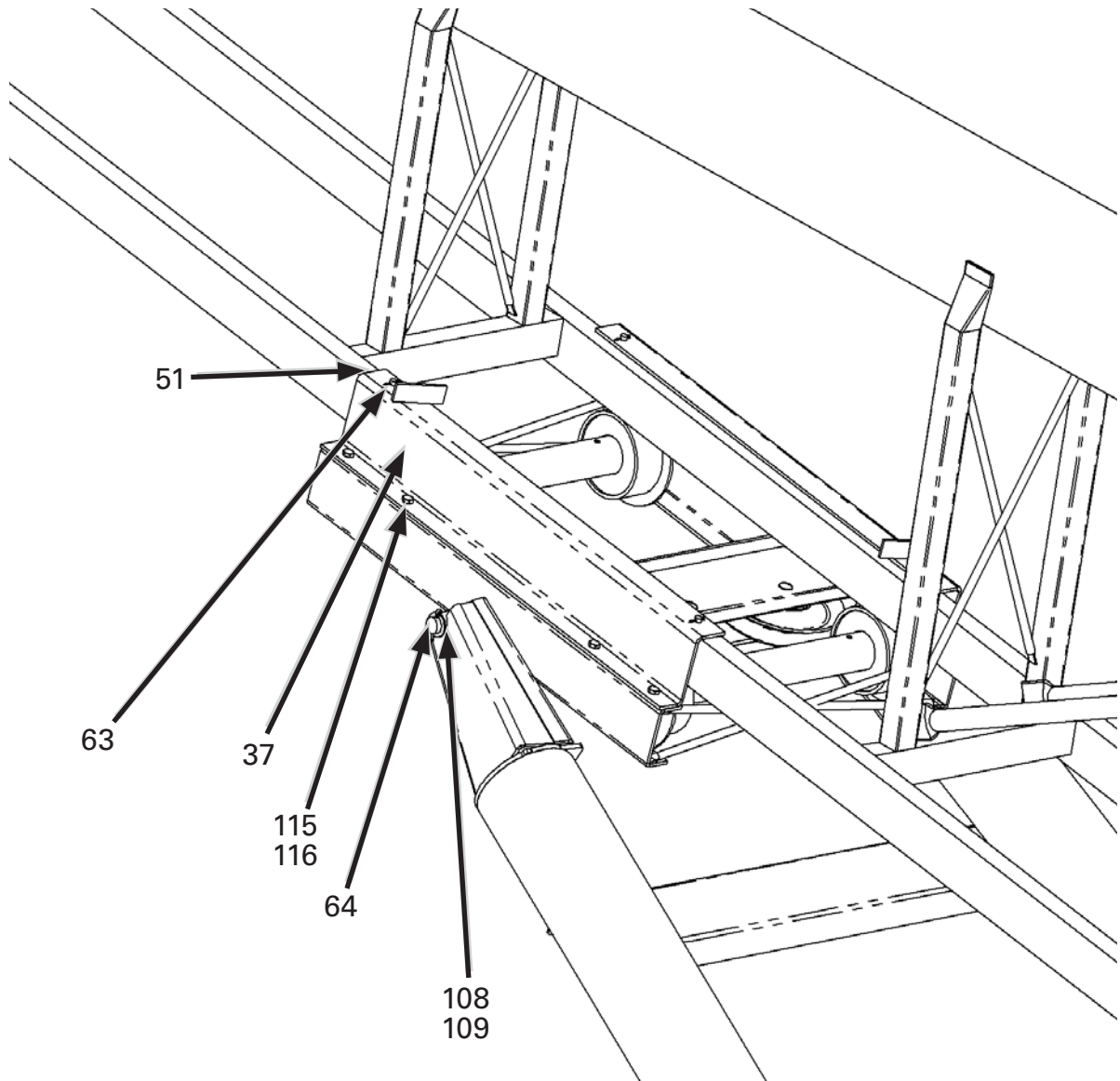
Description: Stop Lift Flag



Description: Stop Lift Flag

Item#	Part #	Description	Qty. 12112	Qty. 12122
110	SZ1200050	WLDT Sign Stop Lift	1	1
111	SZ992127201	Spring EXT GALV PLTD .054 .56	1	1
123	SZ125030	Nut Lock 3/8-16UNC Nylock	35	35
140	SZ126059	BLT HHCS 5/16-18UNC 3 G5	5	5

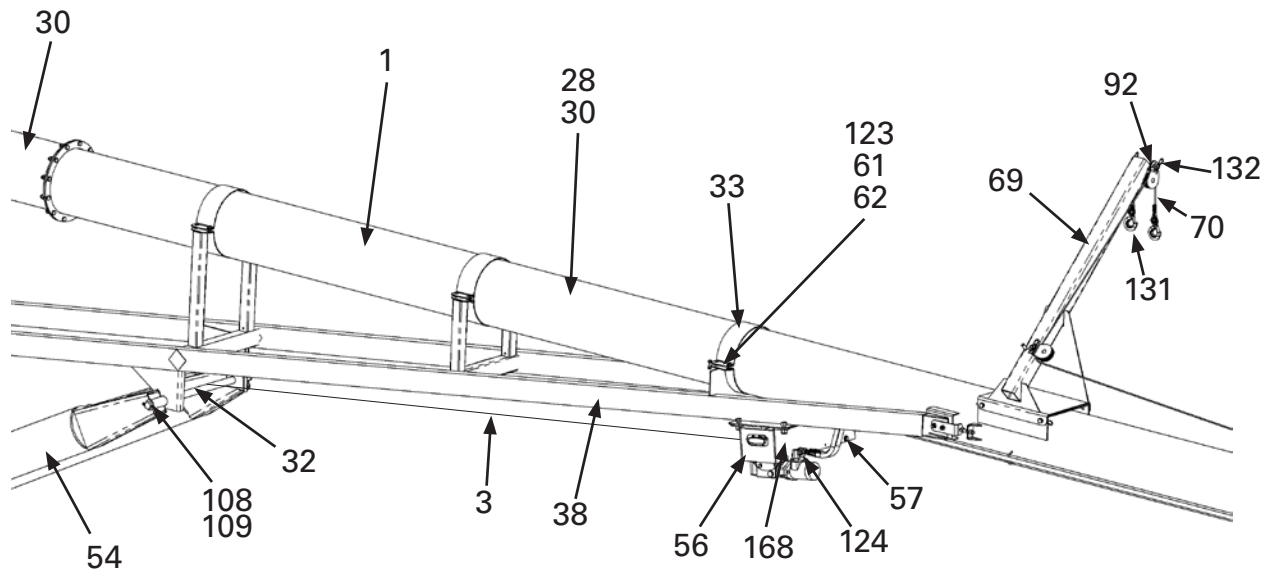
Description: Track Car



Description: Track Car

Item#	Part #	Description	Qty. 12112	Qty. 12122
31	SZ0211248	WLDT TRACK CAR	1	1
37	SZ0211249	Guide Track Car 1/4"	2	2
51	SZ990211248008	3/4" x 13/16" Nylon Wear Button	4	4
63	SZ128016	Pin Cotter 1/8" x 1"	4	4
64	SZ1247011	Pin 1-1/4"CR Round x 40-1/4	1	1
108	SZ6001420	Pin Cotter 1/4" x 2"	6	6
109	SZ0231250	BSHG MACH 1-1/4" 10GA	6	6
115	SZ126092	BLT HHCS 1/2" - 13 UNC 1-1/2 G5	89	89
116	SZ125032	Nut Lock 1/2" - 13UNC Nylock	95	95
117	SZ6003375	CLMP CBL 3/8	2	2

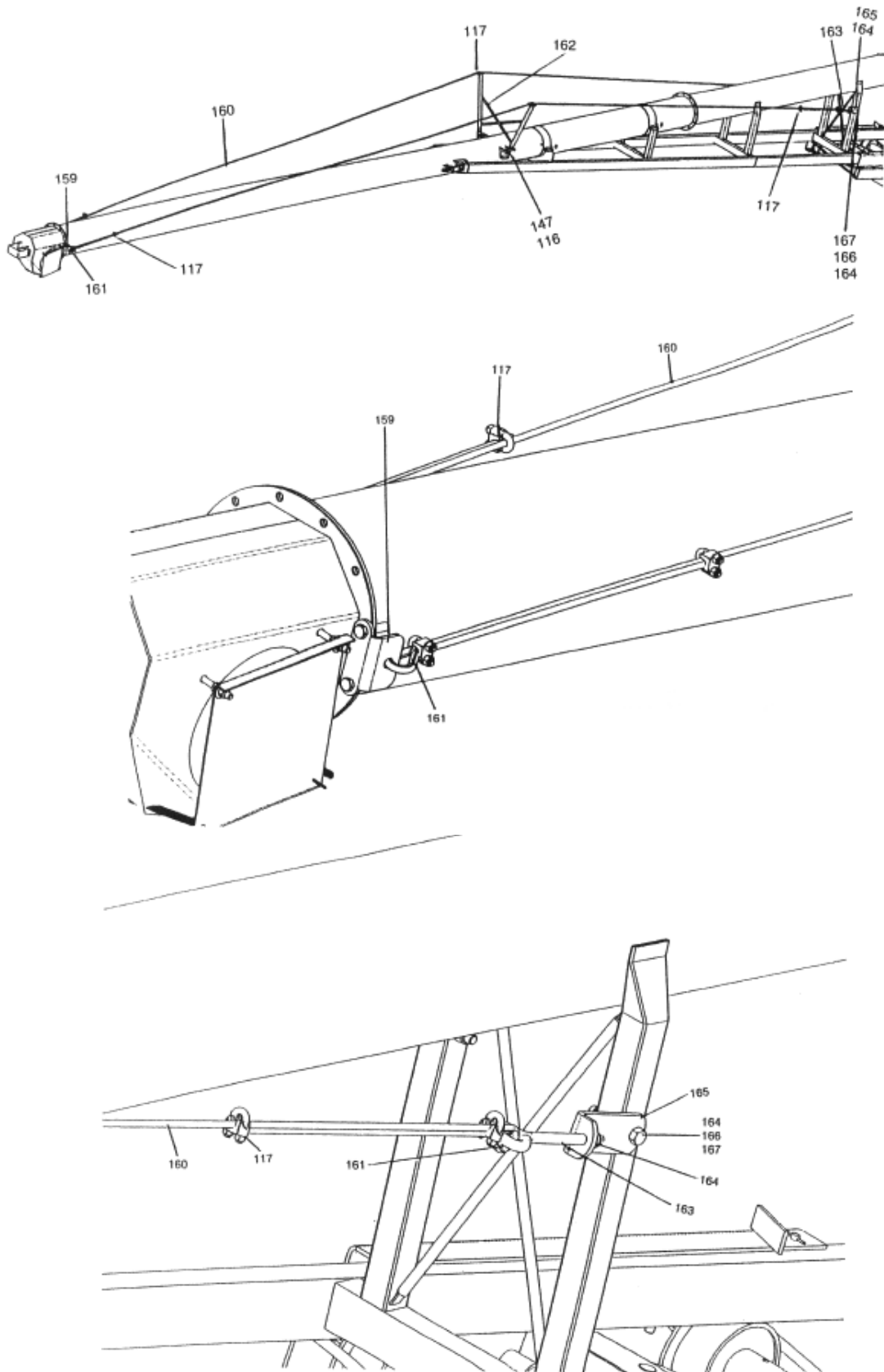
Description: Lower Tube



Description: Lower Tube

Item#	Part #	Description	Qty. 12112	Qty. 12122
1	SZ103514	WLDT TBG 12 CSW 360 LWR	–	1
3	SZ102481	WLDT TBG 12 TRUSS 324 LWR	1	1
28	SZ9902382	Flight 12" DIA - 30' Lower	2	3
30	SZ9902381	Flight 12" DIA - 20' Lower	1	
32	SZ0216329	1-1/4" CR Round x 29-518" Front	1	1
33	SZ102634	Clamp Half 12" PNTD	5	5
38	SZ103943	3/8" x 180' Lift Cable	1	1
54	SZ102601	WLDT Undercarriage & Axle	1	1
55	SZ102602	WLDT UNDERCARRIAGE REAR	1	1
56	SZ103297	Worm Winch Assembly	1	1
57	SZ102627	Assembly Hose HYD 3/8" 252"	2	–
–	SZ105161	Assembly Hose HYD 3/8" 312"	–	2
61	SZ126068	BLT HHCS 3/8-16 1-1/2" G5	20	20
62	SZ127002	WSHR FLT 3/8	40	40
69	SZ9901880	WLDT Arm Swing Over	1	1
70	SZ02165035	WLDT Sheave - Painted	2	2
92	SZ128018	Pin Hair 1/8	8	8
108	SZ6001420	Pin Cotter 1/4" X 2"	6	6
109	SZ0231250	BSHG MACH 1-1/4" 10GA	6	6
123	SZ125030	Nut Lock 3/8-16UNC Nylock	35	35
124	SZ2123801	FTG 90 08MP 06FPX	2	2
131	SZ9902509	ASSY CBL 3/16" 7 X 19 14 TMB GRAB	1	1
132	SZ127003	WSHR FLT 1/2"	12	12

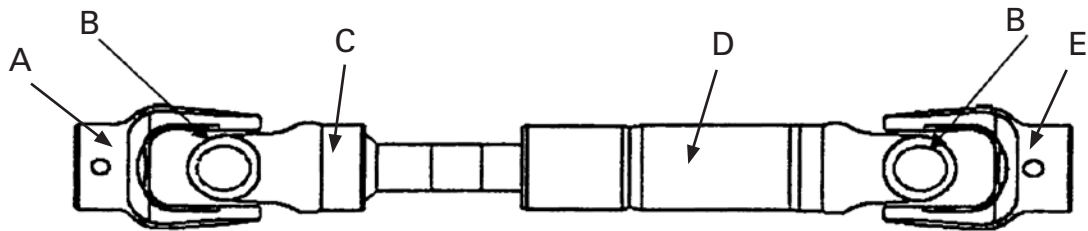
Description: Cable Truss 12122



Description: Cable Truss 12122

Item#	Part #	Description	Qty. 12112	Qty. 12122
159	SZ104742	Anchor Truss Flange Ring		2
160	SZ9901952	Cable 3/8" 7x19 504		2
161	SZ6009375	Cable Thimble 3/8		4
162	SZ2032321	Short Truss Support		1
163	SZ126017	Eye Bolt 5/8-11 UNC 6-1/2		2
164	SZ125036	Lock Nut 5/8-11 UNC		4
165	SZ9901897	Truss Cable Eyebolt Anchor Bar		2
166	SZ127004	Flat Washer 5/8		2
167	SZ102111	Bolt HHCS 5/8-11 UNC 3-1/2 G5		2
168	SZ3981155	Hyd. Motor H Series 101-1026	1	1

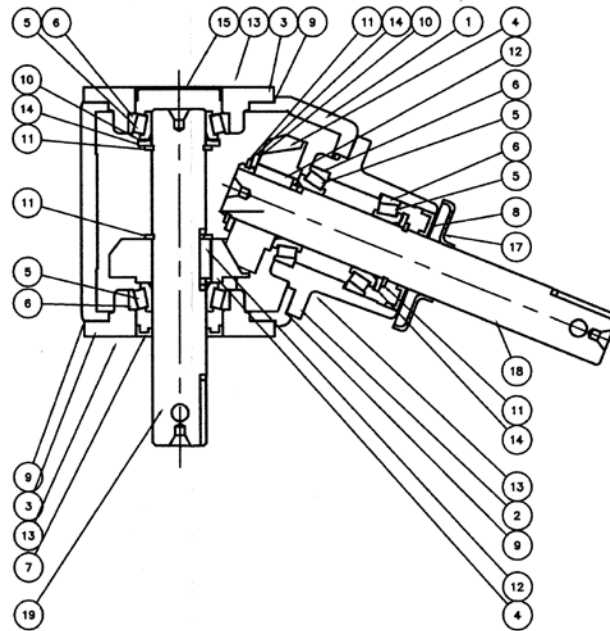
Description: Weasler 12N Internal (IID) #SZ0166020



Description: Weasler 12N Internal (IID) #SZ0166020

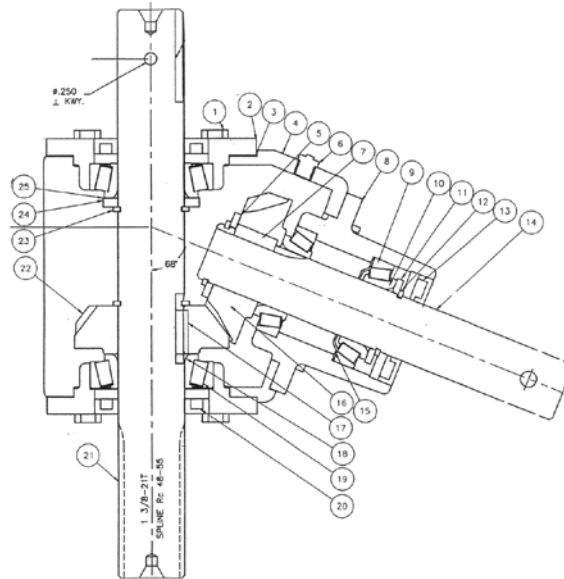
Item#	Part #	Description	Qty. 12112	Qty. 12122
	SZ0166020	Complete IID w /1-3/8" round end yoke – Auger	1	1
	SZ102126	Joint and Shaft half Assembly	1	1
	SZ102127	Joint and Tube half Assembly	1	1
A	SZ102128	Yoke	1	1
B	SZ302-1200	12RBL Cross and Bearing Kit	2	2
C	SZ102129	Yoke & Shaft (1.00 x 1.12 shaft)	1	1
D	SZ102130	Yoke, Tube & Slip Sleeve	1	1
E	SZ102131	Yoke	1	1

Description: Hopper Gear Box (Upper) #SZ0160100



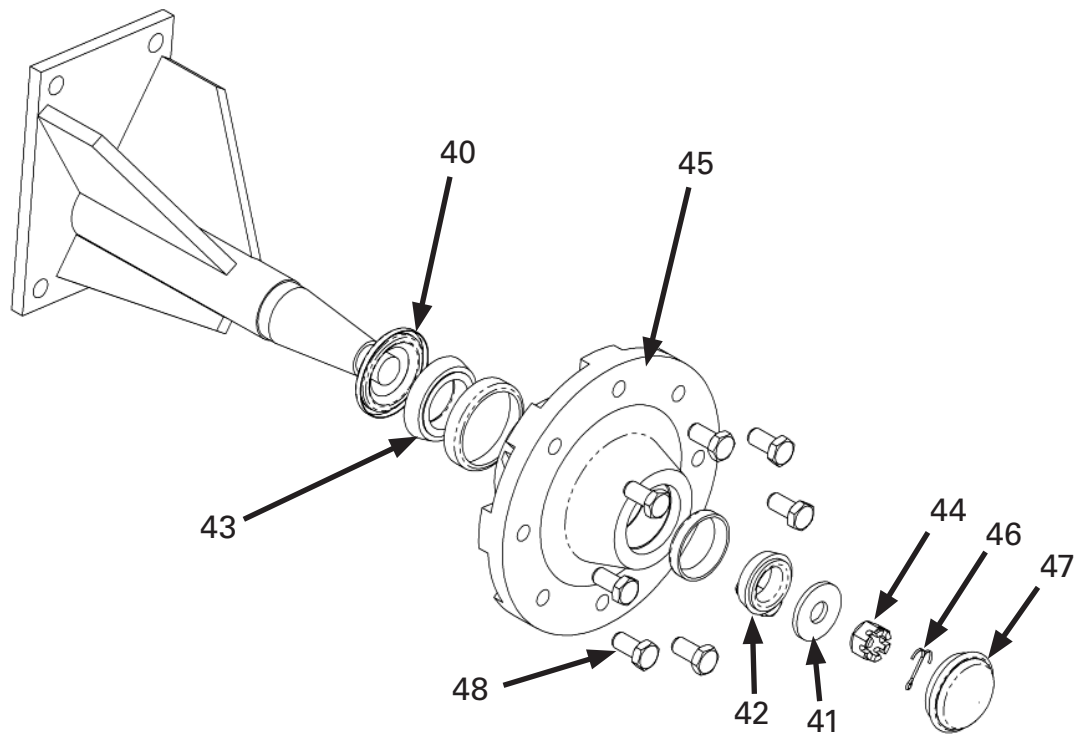
Item#	Part # (Farm King)	Description	Qty. 12112	Qty. 12122
	SZ0160100	Complete Gear Box	1	1
1	SZPG-1063	Case 68 degrees	1	1
2	SZPG-1192	Quill	1	1
3	SZPG-1193	Cover - Open	2	2
4	SZPG-1246	Gear - 19T	2	2
5	SZ100125	Bearing Cone (LM67048)	4	4
6	SZ100126	Bearing Cup (LM67010)	4	4
7	SZPG-1471	Seal: 1.25-2.00	1	1
8	SZ874212890H	Seal: 1.25-2.375	1	1
9	SZPG-1502	Shim - Cover	3	3
10	SZPG-1537	Shim: 1.25-.007	2	2
11	SZPG-1600	Snap Ring SH-125	4	4
12	SZPG-1650	Key: 1/4 Sq.	2	2
13	SZ126046	Bolt: 5/16 - 18 UNC - .75	12	12
14	SZPG-1805	Washer: 1.250-.134	3	3
15	SZPG-1855	Exp. Plug: 2.00	1	1
16	SZPG-1872	Plug: 3/8 NPT	2	2
17	SZPG-2809-1	Shield: 1.25	1	1
18	SZPG-5161	Quill Shaft	1	1
19	SZPG-5162	Cross Shaft	1	1

Description: Drive Section Gear Box (Lower) #SZ0160112



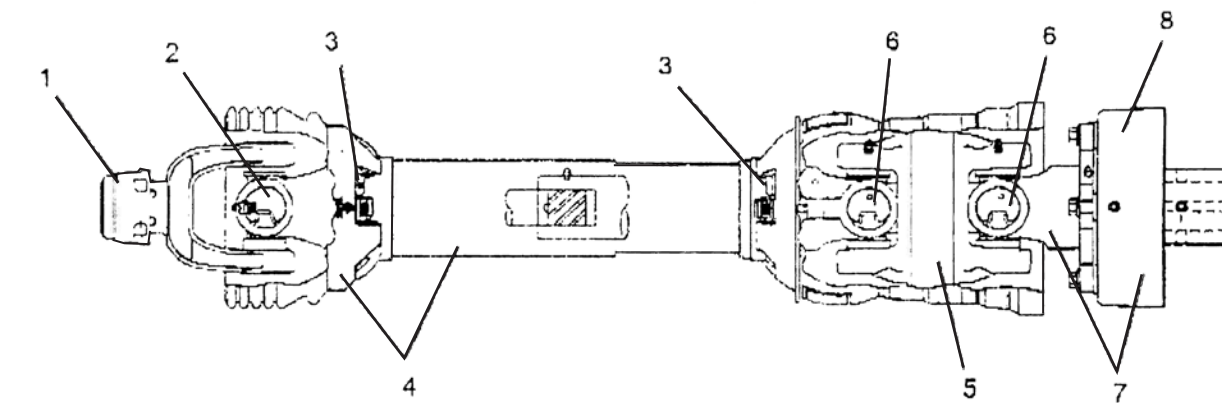
Item#	Part # (Farm King)	Description	Qty. 12112	Qty. 12122
	SZ0160112	Complete Gear Box	1	1
1	SZ126046	Bolt: 5/16-18NC x 3/4 - Gr 5	12	12
2	SZPG-4110	Cover	2	2
3	SZPG1503	Shim: .010	2	2
	SZPG-1502	Shim: .0075	2	2
	SZPG-1501	Shim: .005	2	2
4	SZPG-1063-1	Case - 68 Degree	1	1
5	SZPG-1537	Shim: .007 x 1.25 I.D.	1	1
6	SZPG-1853	Vent - 1/8 NPT - 5 PSI	1	1
7	SZPG-1650	Key - 1/4 Sq. x 7/8"	1	1
8	SZPG-1192	Quill	1	1
9	SZ100126	Bearing Cup - 1-1/4"	2	2
10	SZ100125	Bearing Cone - 1-1/4"	2	2
11	SZPG-1805	Washer - 1-1/4"	2	2
12	SZPG-1600	Snap Ring - 1-1/4"	2	2
13	SZ874212890H	Seal	1	1
14	SZPG-5258	Quill Shaft	1	1
15	SZPG-2816	Washer Grease	1	1
16	SZPG-1246	Gear - 68 Degree - 1-1/4"	1	1
17	SZPG-1665	Key - 5/16 Sq. x 7/8	1	1
18	SZ100151	Bearing Cone - 1-3/8"	2	2
19	SZ100152	Bearing Cup - 1-3/8"	2	2
20	SZPG-1480	Seal	2	2
21	SZPG-5263	Thru Shaft	1	1
22	SZPG-1296	Gear - 68 Degree - 1-3/8"	1	1
23	SZPG-1614	Snap Ring - 1-3/8"	2	2
24	SZPG-1824	Washer - 1-3/8"	1	1
25	SZPG-1534	Shim: .007 x 1.375 I.D.	1	1
26	SZPG-1850	Plug: 1/4 NPT (not shown)	2	2

Description: 8 Bolt hub



Item#	Part #	Description	Qty. 12112	Qty. 12122
40	SZSE-1300	Grease seal 8-bolt hub	2	2
41	SZ6002X3/4WA	SPNDL WSHR	2	2
42	SZ100125	BRG Cone (LM 67048)	2	2
43	SZLM603049	Bearing Cone (LM48548)	2	2
44	SZ600NUT0SLOT1	Spindle nut 8-bolt hub	2	2
45	SZ01181181	8-bolt hub w/cups	2	2
46	SZ66C5/32X13/4	Pin cotter 5/32 1/3/4	2	2
47	SZDC13	Dust cap hub	2	2
48	SZWB11250	Lug bolt, 1/2 x 1"	16	16
49	SZ02113001	ASSY 8-bolt spindle & hub	2	2
50	SZ0211302	Axle extension Weldment	2	2
51	SZ990211248008	3/4" x 13/16" nylon wear button	4	4
68	SZ0118115	15x8x8 BOLT RIM	2	2

Description: Tractor to Auger (IID) Weasler 55R CV x 40"



Item#	Part #	Description	Qty. 12112	Qty. 12122
-	SZ103423	Complete IID w/1-3/8" round end yoke and clutch	1	1
-	SZ104279	Tractor half with shield	1	
-	SZ104280	Auger half with shield & CV joint and clutch	1	1
1	SZ26-15120	Spring LOCK repair kit	1	1
2	SZ03-10050	55R Cross & bearing kit	1	1
3	SZ19-11106	Shield bearing kit	1	1
4	SZ104281	Complete Shield Set	1	1
5	SZ55251-1599	55R CV center body	1	1
6	SZ03-14298	55R Cross & Boaring kit w/grease zerk in cap	2	2
7	SZ104282	1-3/8" Round 55R CV End yoke with clutch	1	1
8	SZ104474	Clutch pack Weasler	1	1

CEQUENT™ TRAILER PRODUCTS

FULTON Work Winches

Read, Understand, Follow and Save These Instructions

Read, understand and follow all of these instructions and warnings (Instructions) before installing and using this product. Install and use this product only as specified in these instructions. Improper installation or use of this product may result in property damage, serious injury, and/or death. Never allow installation or use of this product by anyone without providing them with these instructions. You must read, understand and follow all instructions and warnings for any product(s) to which this product is used in conjunction with or installed. Save these instructions with the product for use as a reference for any future installation and use of the product.

⚠ WARNING

Failure to follow these warnings and instructions may result in property damage, serious bodily injury, and/or death.

- Purchaser/owner must ensure that product is installed according to these instructions. Purchaser/owner must not alter or modify the product.
- Operator and bystanders should never position any part of body under or on the path of any portion of this product or the load being supported, or moved.
- Do not allow children to play on or around this product or the load being supported, or moved.
- Do not use winch to move humans.
- Do not get oil or grease on the friction discs. This could allow the load to slip or fall.
- Obey crank rotation decal and operating instructions.
- Never exceed the maximum rated capacity. Refer to stamped markings on side of frame to obtain rated capacity. If uncertain, contact Cequent Trailer Products at 800-604-9466 or www.cequentgroup.com
- Always inspect the cable and its attachment before each use to make sure they are not

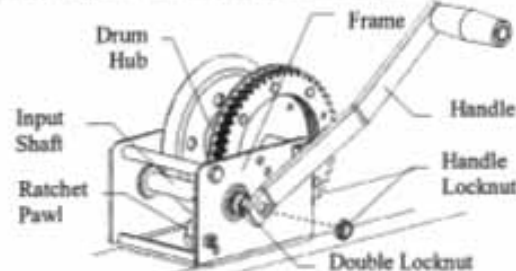
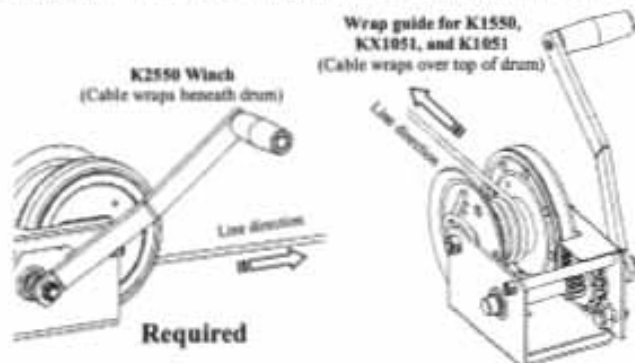
- damaged. Never use worn, kinked, or frayed cable. If the cable or attachment breaks, the cable will whip violently, causing property damage, serious bodily injury, and/or death.
- Never stand along side the winch cable or rope or guide the cable or rope with your hands.
- Never operate with slippery, wet, or oily hands and always maintain a firm grip on the winch handle. Do not attempt to stop a winch by grabbing the handle while in motion.
- Always maintain a minimum of three (3) complete wraps of cable or rope on the drum.
- Only winches that have a minimum hub diameter of 1 3/4" can accommodate steel cable.
- Assure there is adequate safety factor, of at least 3 times the maximum load for all components used.
- A loud clicking sound from the ratchet must be heard when lifting the load. If a loud clicking sound is not heard, do not use and replace ratchet components immediately.
- Never release the crank handle unless the ratchet pawl is fully engaged and the load is supported.

- In no case will a one-way ratchet pawl system hold the load when it is being let out.
- Never leave a weight supported from the winch while the winch is unattended, as another person may attempt to operate the winch, thereby creating an unsafe condition.
- This winch is designed for manual operation only and the load rating is based on an intermittent duty cycle.
- Excessive force in turning winch handle may indicate overload. Fulton brand winches require 25-45 lbs of handle force to pull their rated load.
- If you cannot crank the winch with one hand you are potentially overloading the winch.
- Winches are not designed to secure boats to trailers while towing. Boat tie downs should be used for this purpose.
- Periodically check mounting hardware for proper torque and tighten if necessary.
- Always replace bent, broken, or worn parts before using this product.

Installation Instructions

Warning: Failure to follow all installation instructions could result in winch failure.

(Mounting hardware not supplied.) The winch stand must be capable of supporting at least five times the rated capacity of the winch. The mounting surface must be equal to or greater than the footprint of the winch frame. When attaching the trailer winch, use 3/8" dia. grade-5 hardware and torque to 28-30 ft-lbs. Mounting bolts will vary in length for each application. Check final installation and make sure winch is secure to mounting structure.



Attaching a Handle:

Assemble the handle onto the flatted input shaft end. Tighten the 1/2"-13 locknut against handle and torque to 22-25 ft-lbs. Do not over torque. Do not adjust the double locknuts on the long end of the input shaft.

Attaching a Rope:

Attaching a rope to the winch drum requires no bolts, nuts, or clamp. The rope must weave through the drum outer wall and be secured beneath itself as shown in the illustration.

Attaching a Steel Cable to a Drum:

Pass the cable from the inside of the drum through one of the dimpled holes in the outer plate. Loop the cable around the drum bearing, under itself, and leave 1" of cable extending past the clamp location. Tighten the clamp nuts to approximately 2 ft-lbs.



Illustration only. Do not remove drum to install cable or rope.

Prior to Use

- Inspect rope or cable and replace if damaged.
- Check mounting hardware for proper tightness and re-torque if necessary.
- Gears, ratchet pivot point and shaft bushings must be kept lubricated with a thin oil or grease.

Operation

Take Line/Load In:

- 1) The cable must be securely fastened to the object being lifted and to the winch drum.
- 2) Always be sure that the cable and cable attachments are not damaged and are strong enough for the load. Assure there is adequate safety factor, of at least three times the maximum load for all components used.
- 3) Referring to the "Cable In/Cable Out" decal on the winch, turn handle according to the specified direction to lift. The ratchet MUST make a loud clicking sound while pulling line in.

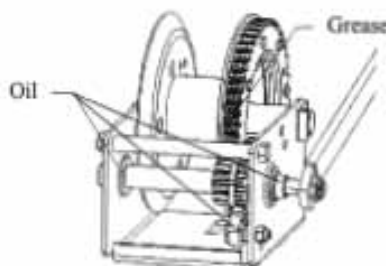
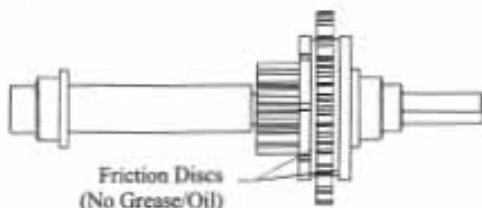
Let Line/Load Out:

- 1) Referring to the "Cable In/Cable Out" decal on the winch, turn handle according to the specified direction to lower. No clicking will be heard because the brake system is activated.

Maintenance

The following procedures should be performed at least annually:

- 1) The gears and bushings of the winch must be kept lubricated. Apply a thin film of grease to the gear teeth, and oil the bushings as needed.
- 2) The ratchet pawl pivot point must be kept lubricated with a thin oil.
- 3) Do not get oil or grease on the friction discs.



How to Order

Use only Cequent Trailer Products' parts or parts of equal quality for repair. Replacement parts are available through Cequent Trailer Products' Customer Service Department, 715-693-1700 or 800-604-9466. Please specify product model number. Visit www.cequentgroup.com for additional details.

Limited Warranty

Warranty. Cequent Trailer Products, Inc. ("We") warrants to the original consumer purchaser ("You") that the product will be free from defects in material and workmanship for a period of one year for "Value Series" products, three years for "Standard Series" and five years for "High Performance Series", under normal use and service and subject to the terms of this Limited Warranty. If the product does not comply with this warranty, We will replace the product without charge to You and within a reasonable time or, at our option, refund the purchase price. This warranty is not transferable. A warranty replacement or repair of a claimed nonconforming product shall not extend the warranty period.

Limitations on the Warranty. The warranty does not cover the following: (a) normal wear and tear; (b) damage through abuse, neglect, misuse (such as use inconsistent with our operating and maintenance instructions) or accident; (c) damage from misapplication, overloading, or improper installation; (d) improper maintenance or (e) a product altered in any manner by anyone other than us. OUR EXPRESS WARRANTY STATED ABOVE IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, BOTH OF WHICH ARE EXPRESSLY DISCLAIMED, SUBJECT TO ANY STATE LAW LIMITATION THAT MAY APPLY TO YOU.

Obligations of Purchaser. To make a claim, contact us at 1050 Indianhead Drive, Mosinee, WI 54455, 1-800-604-9466, identify the product, and follow the instructions that will be provided. At our request, you must return any allegedly nonconforming product to us for inspection, testing and validation of the nonconformity. Any returned product that is replaced or refunded becomes our property. You will be responsible for shipping costs to us. Your purchase receipt to verify date of purchase must be produced with your warranty claim.

Remedy Limits. Refund of the purchase price or replacement of the product is your sole remedy under this or any other warranty on the product. WE WILL NOT BE LIABLE FOR ANY CLAIMS OF ANY KIND GREATER THAN THE PURCHASE PRICE OF THE PRODUCT. IN NO EVENT WILL WE BE LIABLE FOR YOUR PURCHASE OF SUBSTITUTE GOODS, OR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, SUBJECT TO ANY STATE LAW LIMITATION THAT MAY APPLY TO YOU.

Legal Rights. This warranty gives you specific legal rights, and You also may have other rights which vary from state to state.

This warranty is governed by the laws of the United States of America and is void where prohibited.

Cequent Trailer Products
1050 Indianhead Dr., P.O. Box 8 Mosinee, WI 54455-0008
800/604-9466 715/693-1700 Fax 715/693-1799
TR-Sales@cequentgroup.com
www.cequentgroup.com

We declare under our sole responsibility that the Fulton Work Winch is in conformity with EN-12100-2:2003 Safety Machinery; Machinery Directive 98/37/EC.



Serial Number Location

NOTE: The auger serial number is located on the second upright support on the lower cradle.

The following page contains a space for you to record the information about your portable grain auger found on this plate. Please record this information here for future reference.

Serial Number Information

Farm King Number: _____

Farm King Serial Number: _____

Component Serial Numbers:

Manufacturer	Part Number	Serial No.	Notes:

Farm King Limited Warranty

This document limits your warranty rights.

Base Limited Warranty

Buhler Industries Inc. provides this warranty only to original retail purchasers of its product. Buhler Industries Inc. warrants to such purchasers that all Buhler Industries Inc. manufactured parts and components used and serviced as provided for in the Operator's Manual shall be free from defects in materials and workmanship for a period following delivery to the original retail purchaser of 12 months (80 days for commercial applications). This limited warranty applies only to those parts and components manufactured by Buhler Industries Inc. Parts and components manufactured by others are subject to their manufacturer's warranties, if any.

Buhler Industries Inc. will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Buhler Industries Inc. within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Buhler Industries Inc. reserves the right to either inspect the product at the buyer's location or have it returned to the factory for inspection. Parts must be returned through the selling representative and the buyer must prepay transportation charges.

Buhler Industries Inc. will not be responsible for repairs or replacements that are necessitated, in whole or part, by the use of parts not manufactured by or obtained from Buhler Industries Inc. Under no circumstances are component parts warranted against normal wear and tear. There is no warranty on product pump seals, product pump bearings, rubber product hoses, pressure gauges, or other components that require replacement as part of normal maintenance. Also: Buckets and Bucket Tines carry no warranty, Bent Spears carry no warranty, Snowblower Fan Shafts carry no warranty, Mower Blades carry no warranty, Portable Auger Parts Have Two (2) Year Warranty, Loader Parts Have Two (2) Year Warranty. The purchaser is solely responsible for determining suitability of goods sold. This warranty is expressly in lieu of all other warranties expressed or implied. Buhler Industries Inc. will in no event be liable for any incidental or consequential damages whatsoever. Nor for any sum in excess of the price received for the goods for which liability is claimed.

Repair Parts Limited Warranty

Buhler Industries Inc. warrants Farm King replacement parts purchased after the expiration of the Buhler Industries Inc. Limited Warranty, and used and serviced as provided for in the Operator's Manual, to be free from defects in materials or workmanship for a period of thirty (30) days from the invoice date for the parts. Buhler Industries Inc. will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Buhler Industries Inc. within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Such parts must be shipped to Buhler Industries Inc. at the purchaser's expense.

What is Not Covered

Under no circumstances does this limited warranty cover any components or parts that have been subject to the following: negligence; alteration or modification not approved by Buhler Industries Inc.; misuse; improper storage; lack of reasonable and proper maintenance, service, or repair; normal wear; damage from failure to follow operating instructions; accident; and/or repairs that have been made with parts other than those manufactured, supplied, and or authorized by Buhler Industries Inc.

Authorized Dealer and Labor Costs

Repairs eligible for labor under this limited warranty must be made by Buhler Industries Inc. or an authorized Farm King dealer. Buhler Industries Inc. retains the exclusive discretion to determine whether it will pay labor costs for warranty repairs or replacements, and the amount of such costs that it will pay and the time in which the repairs will be made. If Buhler Industries Inc. determines that it will pay labor costs for warranty work, it will do so by issuing a credit to the dealer's or distributor's account. Buhler Industries Inc. will not approve or pay invoices sent for repairs that Buhler Industries Inc. has not previously approved. Warranty service does not extend the original term of this limited warranty.

Warranty Requirements

To be covered by warranty, each Farm King new product must be registered with Buhler Industries Inc. within thirty (30) days of delivery to original retail purchaser. If the customer decides to purchase replacement components before the warranty disposition of such components is determined, Buhler Industries Inc. will bill the customer for such components and then credit the replacement invoice for those components later determined to be covered by this limited warranty. Any such replacement components that are determined not be covered by this limited warranty will be subject to the terms of the invoice and shall be paid for by the purchaser.

Warranty Claims:

Warranty requests must be prepared on Buhler Industries Inc. Warranty Claim Forms with all requested information properly completed. Warranty Claims must be submitted within a thirty (30) day period from date of failure repair.

Warranty Labor:

Any labor subject to warranty must be authorized by Buhler Industries Inc. The labor rate for replacing defective parts, where applicable, will be credited at 100% of the dealer's posted shop rate.

Exclusive Effect of Warranty and Limitation of Liability

TO THE EXTENT PERMITTED BY LAW, BUHLER INDUSTRIES INC. DISCLAIMS ANY WARRANTIES, REPRESENTATIONS, OR PROMISES, EXPRESS OR IMPLIED, AS TO THE QUALITY, PERFORMANCE, OR FREEDOM FROM DEFECT OF THE COMPONENTS AND PARTS COVERED BY THIS WARRANTY AND NOT SPECIFICALLY PROVIDED FOR HEREIN.

TO THE EXTENT PERMITTED BY LAW, BUHLER INDUSTRIES INC. DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ON ITS PRODUCTS COVERED HEREIN, AND DISCLAIMS ANY RELIANCE BY THE PURCHASER ON BUHLER INDUSTRIES INC.'S SKILL OR JUDGMENT TO SELECT OR FURNISH GOODS FOR ANY PARTICULAR PURPOSE. THE PURCHASER'S ONLY AND EXCLUSIVE REMEDIES IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON PRODUCTS MANUFACTURED BY BUHLER INDUSTRIES INC. ARE THOSE SET FORTH HEREIN. IN NO EVENT SHALL BUHLER INDUSTRIES INC. BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, BY WAY OF EXAMPLE ONLY AND NOT LIMITATION, LOSS OF CROPS, LOSS OF PROFITS OR REVENUE, OTHER COMMERCIAL LOSSES, INCONVENIENCE, OR COST OF REPLACEMENT OF RENTAL EQUIPMENT). IN NO EVENT SHALL FARM KING'S CONTRACT OR WARRANTY LIABILITY EXCEED THE PURCHASE PRICE OF THE PRODUCT.

(Note that some provinces or states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusion may not apply to you.) This warranty gives you specific legal rights and you may also have other rights, which vary from province to province or state to state.

Buhler Industries Inc. neither assumes nor authorizes any person or entity, including its selling representatives, to assume any other obligations or liability in connections with the sale of covered equipment, or to make any other warranties, representations, or promises, express or implied, as to the quality, performance, or freedom from defect of the components and parts covered herein. No one is authorized to alter, modify, or enlarge this limited warranty, or its exclusions, limitations and reservations.

Corrections of defects and improper workmanship in the manner, and for the applicable time periods, provided for herein shall constitute fulfillment of all responsibilities of Buhler Industries Inc. to the purchaser, and Buhler Industries Inc. shall not be liable in negligence, contract, or on any other basis with respect to the subject equipment.

This limited warranty is subject to any existing conditions of supply which may directly affect Buhler Industries Inc.'s ability to obtain materials or manufacture replacement parts.

Buhler Industries Inc. reserves the right to make improvements in design or changes in specifications to its products at anytime, without incurring any obligation to owners of units previously sold.

Government Legislation:

Warranty terms and conditions are subject to provincial or state legislation.

Important Note: This warranty does not apply to rentals.

www.farm-king.com

Farm King

1330 43rd Street NW
Fargo, ND USA 58102
Ph.: 701.282.7014 | Fax: 701.282.5865
Toll Free: 888.524.1004
E-mail: info@buhler.com
www.farm-king.com

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