OPERATOR AND PARTS MANUAL

TELESWING AUGER

Model 13", 16"



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Manufacturer's Statement: For technical reasons, Farm King 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 soil fertility, applied agricultural techniques, weather conditions, and other factors.

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the dealer will keep one copy.

WARRANTY REGISTRATION FORM

This form must be filled out by the dealer and signed by both the dealer and the customer at the time of delivery. **Customer Name:** Dealer Name: Customer Address: Dealer Address: City: Prov / State: City: Prov / State: Postal / Zip Code: Phone: Postal / Zip Code: Phone: Model: Serial Number: **Delivery Date:** I have thoroughly instructed the buyer on the above described equipment which review included the Operator and Parts Manual content, equipment care, adjustments, safe operation and applicable warranty policy. **Dealer Inspection Report** Safety Bearings Turn Freely All Lights And Reflectors Installed AugerTube Is Straight All Lights And Reflectors Cleaned And Working Flighting Turns Freely All Decals Installed Guards And Shields Installed And Secure Gear Box Oil Level Checked All Fasteners Are Tight Review Operating And Safety Instructions Machine Is Lubricated Check For Hydraulic Leaks CheckTire Pressure Date: Dealer Rep. Signature: The above equipment and Operator And Parts Manual have been received by me and I have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy. Date: Customer / Owner Signature: Remove this Warranty Registration Form from the Operator And Parts Manual. Make two copies of the form. Send original Warranty Registration Form to Farm King. Give one copy to the customer and



INTRODUCTION

This Operator And Parts Manual was written to give the owner / operator instructions on the safe operation, maintenance and part identification of the Farm King equipment. READ AND UNDERSTAND THIS OPERATOR AND PARTS MANUAL BEFORE OPERATING YOUR FARM KING EQUIPMENT. If you have any questions, see your Farm King dealer. This manual may illustrate options and accessories not installed on your Farm King equipment.

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OWNER'S INFORMATION

Thank you for your decision to purchase a Farm King Teleswing Auger. To ensure maximum performance of your equipment, it is mandatory that you thoroughly study the Operator And Parts Manual and follow the recommendations. Proper operation and maintenance are essential to maximize equipment life and prevent personal injury.

Operate and maintain this equipment in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and / or laws. Follow all on-product labeling and instructions.

Make sure that all personnel have read this Operator And Parts Manual and thoroughly understand safe and correct operating, installation and maintenance procedures.

Farm King is continually working to improve its products. Farm King reserves the right to make any improvements or changes as deemed practical and possible without incurring any responsibility or obligation to make any changes or additions to equipment sold previously.

Although great care has been taken to ensure the accuracy of this publication, Farm King makes no warranty or guarantee of any kind, written or expressed, implied or otherwise with regard to the information contained within this manual. Farm King assumes no responsibility for any errors that may appear in this manual and shall not be liable under any circumstances for incidental, consequential or punitive damages in connection with, or arising from the use of this manual.

Keep this manual available for frequent reference. All new operators or owners must review the manual before using the equipment and annually thereafter. Contact your Farm King Dealer if you need assistance, information, or additional copies of the manual.

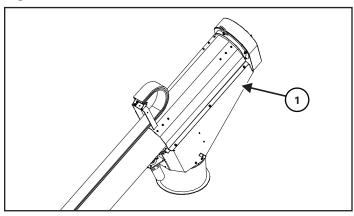
Visit our website at www.farm-king.com for a complete list of dealers in your area.

The directions left, right, front and rear, as mentioned throughout this manual, are as viewed by the operator sitting in the tractor seat while towing the implement.

Serial Number Location

Please enter the model and serial number in the space provided for easy reference.

Figure 1



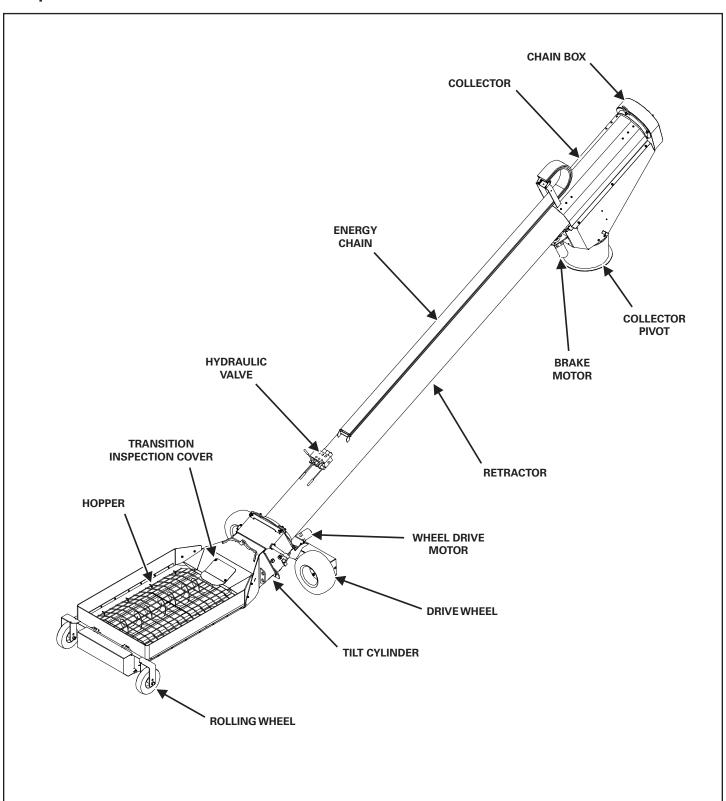
Model Number:
Serial Number:

The serial number plate (Item 1) [Figure 1] is located on the side of the collector frame.

Always use your serial number when requesting information or when ordering parts.

EQUIPMENT IDENTIFICATION

Component Location



SAFETY

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SAFETY INSTRUCTIONS

Safe Operation is The Operator's Responsibility



Safety Alert Symbol

This symbol with a warning statement means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.



CAUTION

The signal word CAUTION on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



DANGER

The signal word DANGER on the machine and in the manuals indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

The signal word WARNING on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



IMPORTANT

This notice identifies procedures which must be followed to avoid damage to the machine.

Safe Operation Needs A Qualified Operator



WARNING

Operators must have instructions before operating the machine. Untrained operators can cause injury or death.

For an operator to be qualified, he or she must not use drugs or alcohol which impair alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he or she can safely operate a machine and the equipment.

Understand the written instructions, rules and regulations:

- The written instructions from Farm King include the Warranty Registration, Dealer Inspection Report, Operator And Parts Manual and machine signs (decals).
- Check the rules and regulations at your location.
 The rules may include an employer's work safety
 requirements. Regulations may apply to local driving
 requirements or use of a Slow Moving Vehicle (SMV)
 emblem. Regulations may identify a hazard such as
 a utility line.

Have Training with Actual Operation:

- Operator training must consist of a demonstration and verbal instruction. This training is given by the machine owner prior to operation.
- The new operator must start in an area without bystanders and use all the controls until he or she can operate the machine safely under all conditions of the work area.

Know the Work Conditions:

- Clear working area of all bystanders, especially small children and all obstacles that might be hooked or snagged, causing injury or damage.
- Know the location of any overhead or underground power lines. Call local utilities and have all underground power lines marked prior to operation.
- Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service.

Use Safety Rules

- Read and follow instructions in this manual and the tractor's Operators Manual before operating.
- Under no circumstances should young children be allowed to work with this equipment.
- This equipment is dangerous to children and persons unfamiliar with its operation.
- If the elderly are assisting with work, their physical limitations need to be recognized and accommodated.
- Stay clear of overhead power lines when raising or lowering the auger. Electrocution can occur without direct contact.
- Check for overhead and / or underground lines before operating equipment (if applicable).
- In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.
- Check that the equipment is securely fastened to the tractor / towing vehicle.
- Make sure all the machine controls are in the NEUTRAL position before starting the machine.
- Operate the equipment only from the operator's position.
- Operate the equipment according to the Operator And Parts Manual.
- When learning to operate the equipment, do it at a slow rate in an area clear of bystanders, especially small children.
- DO NOT permit personnel to be in the work area when operating the equipment.
- The equipment must be used ONLY on approved tractors / transport vehicles.
- DO NOT modify the equipment in any way.
- Unauthorized modification may impair the function and / or safety and could affect the life of the equipment.
- DO NOT make any adjustments or repairs on the equipment while the machine is running.
- Keep shields and guards in place. Replace if damaged.

Safety Rules For Power Take-Off (PTO) Driven Equipment

- Keep PTO shields and all guards in place. Replace damaged or missing shields and guards before operating.
- Follow warnings and instructions on machine signs (decals). Replace damaged or missing decals.
- Do not wear loose or bulky clothing around the PTO or other moving parts.
- Keep bystanders away from PTO driven equipment, and never allow children near machines.
- Read and understand the manuals for the PTO driven equipment and be aware of safe operating procedures and hazards that may not be readily apparent.
- Always walk around equipment to avoid coming near a turning PTO driveline. Stepping over, leaning across or crawling under a turning PTO driveline can cause entanglement.
- Position the machine and equipment hitch correctly to prevent driveline stress and separation.
- Use caution when turning. Turning too sharp can cause driveline damage.
- Use caution when raising PTO driven attachment.

Machine Requirements And Capabilities

- Stop the machine and engage the parking brake. Install blocks in front of and behind the rear tires of the machine. Install blocks underneath and support the equipment securely before working under raised equipment.
- Keep bystanders clear of moving parts and the work area. Keep children away.
- Use increased caution on slopes and near banks and ditches to prevent overturn.
- Make certain that the Slow Moving Vehicle (SMV)
 emblem is installed so that it is visible and legible.
 When transporting the equipment, use the flashing
 warning lights (if equipped) and follow all local
 regulations.
- Operate this equipment with a machine equipped with an approved Roll-Over Protective Structure (ROPS). Always wear seat belt when the ROPS is up. Serious injury or death could result from falling off the machine.
- Before leaving the operator's position:
 - 1. Always park on a flat level surface.
 - 2. Place all controls in neutral.
 - 3. Engage the parking brake.
 - 4. Stop engine.
 - 5. Wait for all moving parts to stop.
- Carry passengers only in designated seating areas.
 Never allow riders on the machine or equipment.
 Falling off can result in serious injury or death.
- Start the equipment only when properly seated in the operator's seat. Starting a machine in gear can result in serious injury or death.
- Operate the machine and equipment from the operator's position only.
- The parking brake must be engaged before leaving the operator's seat. Rollaway can occur because the transmission may not prevent machine movement.

Transport Safety

- Do not exceed 20 mph (32 kph). Reduce speed on rough roads and surfaces.
- Comply with state and local laws governing highway safety and movement of machinery on public roads.
- The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use.
- Local laws should be checked for all highway lighting and marking requirements.
- Always install transport locks, pins or brackets before transporting.
- Always yield to oncoming traffic in all situations and move to the side of the road so any following traffic may pass.
- Always enter curves or drive up or down hills at a low speed and at a gradual steering angle.
- Never allow riders on either tractor or equipment.
- Keep tractor / towing vehicle in a lower gear at all times when traveling down steep grades.
- Maintain proper brake settings at all times (if equipped).
- Stay away from overhead power lines when auger is raised. Electrocution can occur without direct contact.

FIRE PREVENTION



Maintenance

- The machine and some equipment have components that are at high temperatures under normal operating conditions. The primary source of high temperatures is the engine and exhaust system. The electrical system, if damaged or incorrectly maintained, can be a source of arcs or sparks.
- Flammable debris (leaves, straw, etc.) must be removed regularly. If flammable debris is allowed to accumulate, it can cause a fire hazard. Clean often to avoid this accumulation. Flammable debris in the engine compartment is a potential fire hazard.
- All fuels, most lubricants and some coolant mixtures are flammable. Flammable fluids that are leaking or spilled onto hot surfaces or onto electrical components can cause a fire.

Operation

- The Farm King machine must be in good operating condition before use.
- Check all of the items listed on the service schedule under the 8 hour column before operation. (See Maintenance section)
- Do not use the machine where exhaust, arcs, sparks or hot components can contact flammable material, explosive dust or gases.

Fire Extinguishers



 Know where fire extinguishers and first aid kits are located and how to use them. Inspect the fire extinguisher and service the fire extinguisher regularly. Obey the recommendations on the instructions plate.

Electrical



 Check all electrical wiring and connections for damage. Keep the battery terminals clean and tight. Repair or replace any damaged part or wires that are loose or frayed. Battery gas can explode and cause serious injury. Do not jump start or charge a frozen or damaged battery. Keep any open flames or sparks away from batteries. Do not smoke in battery charging area.

Hydraulic System

 Check hydraulic tubes, hoses and fittings for damage and leakage. Never use open flame or bare skin to check for leaks. Hydraulic tubes and hoses must be properly routed and have adequate support and secure clamps. Tighten or replace any parts that show leakage. Always clean fluid spills. Do not use gasoline or diesel fuel for cleaning parts. Use commercial nonflammable solvents.

Fueling



 Stop the engine and let it cool before adding fuel. No smoking! Do not refuel a machine near open flames or sparks. Fill the fuel tank outdoors.

Welding And Grinding

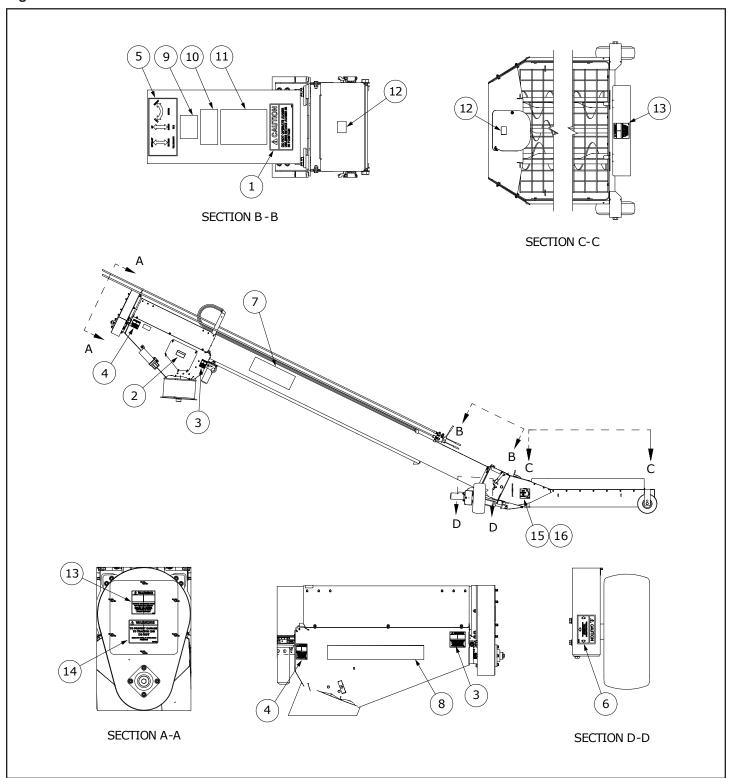
- Always clean the machine and equipment, disconnect the battery, and disconnect the wiring from the machine controls before welding. Cover rubber hoses, battery and all other flammable parts. Keep a fire extinguisher near the machine when welding.
- Have good ventilation when grinding or welding painted parts. Wear dust mask when grinding painted parts. Toxic dust or gas can be produced.
- Dust generated from repairing nonmetallic parts such as hoods, fenders or covers can be flammable or explosive. Repair such components in a well ventilated area away from open flames or sparks.



EQUIPMENT & SAFETY SIGNS (DECALS)

Follow the instructions on all the signs (decals) that are on the equipment. Replace any damaged signs (decals) and be sure they are in the correct locations. Equipment signs are available from your Farm King equipment dealer.

Figure 2



Decal Identification [Figure 2]

INTAKE AUGER, PN: 917765 (Item 1)



ATTENTION OIL LEVEL, PN: 918406 (Item 2)



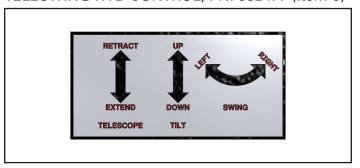
WARNING MOVING PARTS, PN: 932413 (Item 3)



WARNING PINCH PARTS, PN: 932472 (Item 4)



TELESWING HYD CONTROL, PN: 932477 (Item 5)



CAUTION EQUIPMENT, PN: 932478 (Item 6)



BS13TELESWING, PN: 932574 (Item 7)



FARM KING, PN: 932575 (Item 8)



IMPORTANT RUN AUGER, PN: 961015 (Item 9)



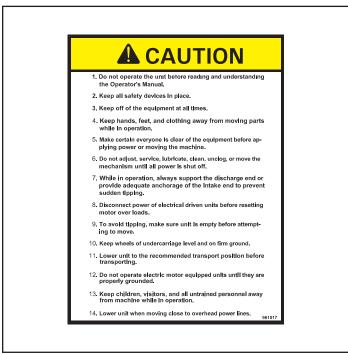
DANGER KEEP HANDS, PN: 961016 (Item 10)



WARNING SHIELD, PN: SZ06023 (Item 13)



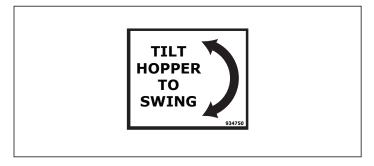
CAUTION 14 POINT, PN: 961017 (Item 11)



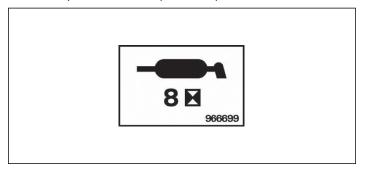
WARNING TRACTOR CAB, PN: 934823 (Item 14)



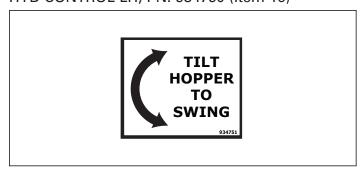
HYD CONTROL RH, PN: 934751 (Item 15)



GREASE, PN: 966699 (Item 12)



HYD CONTROL LH, PN: 934750 (Item 16)



SAFETY SIGN-OFF FORM



WARNING

Instructions are necessary before operating or servicing equipment. Read and understand the Operator And Parts Manual and safety signs (decals) on equipment. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

Farm King follows the general Safety Standards specified by the American Society of Agricultural and Biological Engineers (ASABE) and the Occupational Safety and Health Administration (OSHA). Anyone who will be operating and / or maintaining the auger must read and clearly understand ALL Safety, Operating and Maintenance information presented in this manual.

Annually review this information before the season start-up and make these periodic reviews of SAFETY and OPERATION a standard practice for all of your equipment. An untrained operator is unqualified to operate this machine.

The following sign-off sheet is provided for your record and to show that all personnel who will be working with the equipment have read and understand the information in this Operator And Parts Manual and have been instructed in the operation of the equipment.

SIGN-OFF SHEET			
Date	Employee's Signature	Employer's Signature	



ASSEMBLY

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COMPONENT UNLOADING AND IDENTIFICATION

Unload the crate(s) and components in flat level area of adequate size to assemble the auger.



DANGER

ELECTROCUTION HAZARD

To prevent serious injury or death from electrocution:

- Be aware of overhead power lines.
- Keep away from power lines when unloading and assembling the auger.
- Electrocution can occur without direct contact.



WARNING





DO NOT permit bystanders to be in the work area when unloading and assembling components.

DO NOT work under suspended parts.

Keep away from moving parts.

Always use lifting devices / vehicles, chains or straps of adequate size and strength when unloading and assembling components.



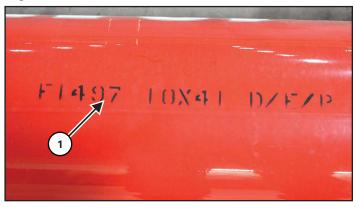
IMPORTANT

Unload crate(s) and auger components carefully, not to cause damage to any of the components.

Using the packing list, locate and place all components and hardware in one area. Count the individual components and verify that you have received the correct number of components to fully assemble the auger.

If any components are damaged, missing or replacement parts are required, contact your Farm King Dealer.

Figure 3



Larger components are marked (Item 1) [Figure 3] for identification.

Assembly - Teleswing Farm King

SWING AUGER ASSEMBLY

13" Teleswing

Move the old swing auger into a position out from the side of the auger that is safe to lift. Secure an appropriate lifting device with lifting straps or chains to the swing auger.

Apply slight tension to prevent swing auger from falling when the fasteners are removed.

Remove fasteners from swivel ring, pivots, and driveline on old swing unit to disconnect.

Lift off the old swing auger in a safe manner.

Remove old swivel ring and driveline.

Move the old swing auger into a position out from the side of the auger that is safe to lift.

Secure the new Teleswing auger to an appropriate lifting device with lifting straps or chains. Move the Teleswing over the input box to connect.

Grease the Teleswing gearbox spline.



Reinstall the old driveline to the Teleswing auger.

The center of the driveline must be placed in line with the pivots.

Look through the hole (Item 1) [Figure 5] in the pivot brackets to check that driveline is in line. Lock driveline in place.

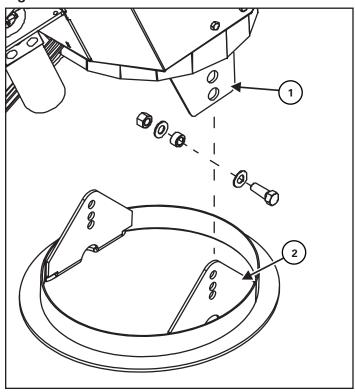
Install the new swivel ring to the input box. Place accordion pivot cover and two hose clamps around the swivel ring.

Grease the spline on the input box gearbox.

Lower the Teleswing auger into place. Align pivot brackets and driveline.

The driveline can be aligned to the spline and locked through the door on the side of the collector.

Figure 4



Connect the collector brackets (Item 1) to the brackets on the swivel ring (Item 2) [Figure 4].

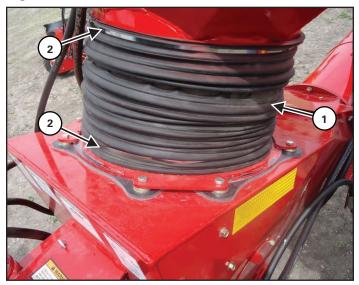
Figure 5



Position top hole of the input box brackets and bottom hole (Item 1) of the collector brackets [Figure 5].

Attach using 5/8" x 1-3/4" hex bolt, spacer bushing, 5/8" flat washers, and 5/8" lock nut.

Figure 6



Extend the pivot cover (Item 1) over the swivel ring and rim of collector. Position hose clamps (Item 2) [Figure 6] and tighten.

CHAINBOX SHAFT ADJUSTMENT

Figure 7



Remove the plate (Item 1) on the chainbox to allow access to hardware [Figure 7].

Loosen the four nuts (Item 2) on the outside face of the chainbox. Loosen the four nuts (Item 3) on the inside face of the chainbox [Figure 7].

Assembly - Teleswing Farm King

Figure 8



Insert half the length of the splined shaft (Item 1) into the bearing housing on the collector [Figure 8].

Tighten the eight nuts (Item 2, 3) on the chainbox [Figure 7].

Extend and retract the shaft multiple times to check the alignment. The shaft must remain centered in the housing.

Install the access plate once adjustments are complete.



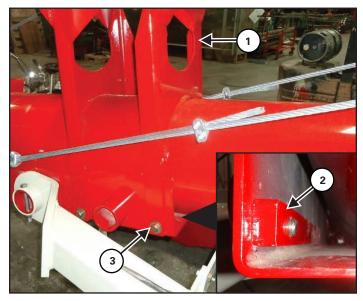
The splined shaft may become offset if inserted into the housing without adjustment.

WINCH BOOM ASSEMBLY

13" Teleswing

Remove the old winch boom and hardware from the mount on auger tube.

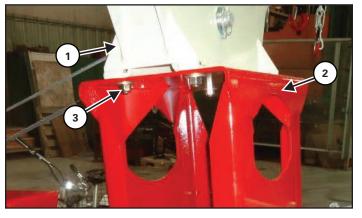
Figure 9



Position the new winch platform (Item 1) on the tube. Align the platform legs with the mounts forward of the undercarriage pivots [Figure 9].

Place brackets (Item 2) behind the mounts and attach using 9/16" flat washers and 9/16" x 1-1/4" hex bolts (Item 3) [Figure 9].

Figure 10

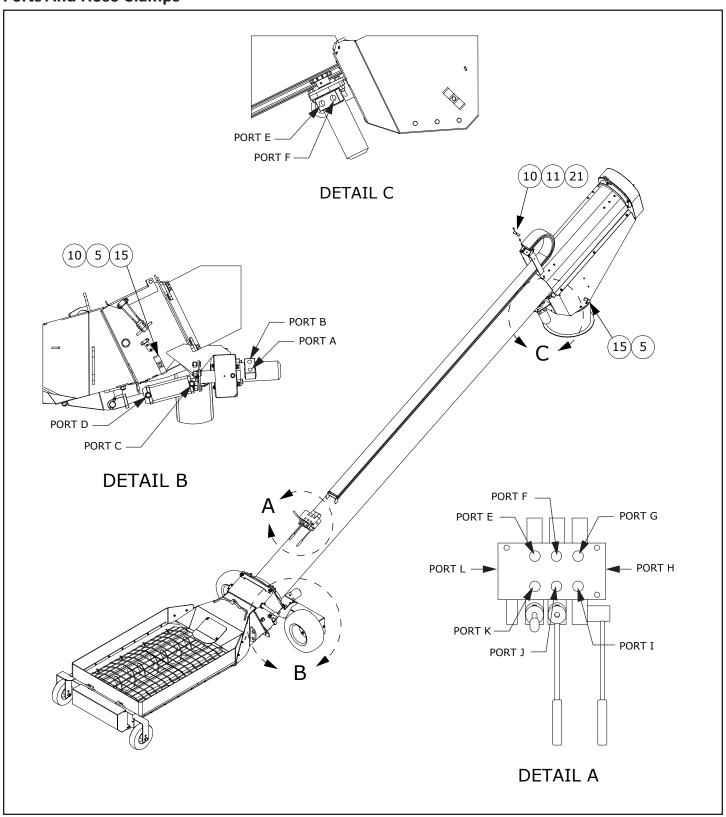


Place the winch boom (Item 1) on top of the platform (Item 2) facing the hopper. Attach using 1/2" x 1-1/4" hex bolts (Item 3), 1/2" flat washers, and 1/2" lock nuts [Figure 10].

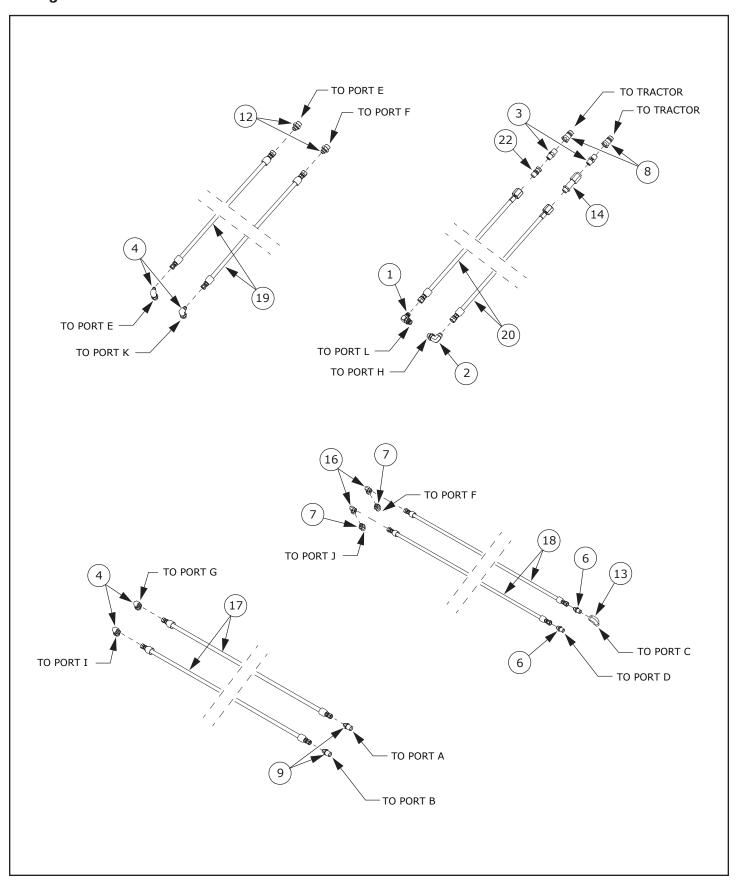
HYDRAULICS ASSEMBLY

13" Teleswing

Ports And Hose Clamps



Fittings And Hoses





Part Identification

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	811414	ELBOW 90 3/4 MORB X 3/4 MJIC	1
2	811416	ELBOW -10 MORB X -8 MJIC, 90 DEG	1
3	811469	ADAPTOR STRAIGHT -8 MNPT X -8 MNPT	2
4	811916	ELBOW -8MORB X -6MJIC 90DEG	4
5	812026	HEX BOLT 5/16" X 1" (PL)	2
6	812084	ADAPTER -6MJIC X -6MPT	2
7	812107	ADAPTOR STR 3/4MORB X 9/16MJI	2
8	812208	NIPPLE 1/2 BODY 1/2 -14 NPTF QUICK CONNECT	2
9	812320	ADAPTER -8 MPT X -6 MJIC	2
10	812362	LOCK NUT 5/16" (PL)	2
11	81925	HEX BOLT 5/16" X 1 3/4" (PL)	1
12	886897	ADAPTOR STR 7/8MORB X 3/4MJIC S	2
13	913969	ELBOW-6 MPT X -6 FPT 90	1
14	914276	VALVE-CHECK -8 MPT X -8 FPT	1
15	914818	BRKT - HYD HOSE CLAMP	2
16	919398	ELBOW -6 FJIC X - 6 MJIC, 90°	2
17	932238	HOSE -6 X -6 JIC X -6JIC, L = 54"	2
18	932239	HOSE -4 X -6JIC X -6JIC, L = 73"	2
19	932240	HOSE -6 X -6JIC X -8JIC, L = 201"	2
20	932241	HOSE -6 X -8NPT X -8JIC, L = 356"	2
21	932318	BRKT - HYD HOSE CLAMP	1
22	966307	ADAPTOR 1/2MNPT X 1/2FNPT0520R	1



OPERATION

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GENERAL INFORMATION

Pre - Operation Checklist

Before operating the auger for the first time and each time thereafter, check the following items:



WARNING



AVOID INJURY OR DEATH

Disengage the PTO, engage the machine's parking brake, stop the engine and make sure all rotating components are completely stopped before connecting, disconnecting, adjusting or cleaning any PTO driven equipment.

Always keep PTO shields and all guards in place when using PTO driven equipment.

Disengage PTO for road travel.

Keep hands, feet and clothing away.



WARNING

AVOID INJURY OR DEATH

Wear safety glasses to prevent eye injury when any of the following conditions exist:

- When fluids are under pressure
- Flying debris or loose material is present
- Engine is running
- Tools are being used
- Lubricate the equipment per the schedule outline in the Maintenance Section.
- 2. Check the augers. Remove any material build-up or debris that has become entangled.

3. Make sure that all guards and shields are in place, secured and functioning as designed.



HIGH PRESSURE FLUID HAZARD

Leaking fluids under pressure can enter the skin and cause serious injury or death. Immediate medical attention is required. Wear goggles. Use cardboard to check for leaks.

4. Check condition of all hydraulic components for leaks. Repair as required.

Note: Do not operate with hydraulic leaks.

- 5. Check and tighten all wheel bolts to proper torque.
- 6. Check tire pressure. Inflate per manufacturer's specification.
- 7. Check that the PTO driveline telescopes easily and turns freely.
- 8. Make sure the PTO ends are securely attached to the auger and the tractor.

Break - In Checklist

Note: The break-in period is different from normal operating conditions.

The tube and flighting must get a polished surface through use. Once the new auger has polished it will run smooth at recommended speed.

Note: Never operate an empty auger for over one minute, as the flighting and housing will experience excessive wear.

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.
- 2. Gradually increase the speed until operating at full PTO speed.

Note: Do not run empty during break-in period.



WARNING



AVOID INJURY OR DEATH

Disengage the PTO, engage the machine's parking brake, stop the engine and make sure all rotating components are completely stopped before connecting, disconnecting, adjusting or cleaning any PTO driven equipment.

Always keep PTO shields and all guards in place when using PTO driven equipment.

Disengage PTO for road travel.

Keep hands, feet and clothing away.

Check the following mechanical items after 1 hour of operation and again after 10 hours of operation:

- 1. Re-torque wheel bolts to proper torque and check tire pressure.
- 2. Check for loose fasteners and hardware. Tighten as required.
- 3. Check the condition of all hydraulic lines, hoses, fittings and couplers for damage or leaks.
- 4. Tighten leaking fittings and repair or replace any damaged components.
- 5. Check the condition of all electrical lines, wires, and connections. Repair or replace any damaged systems or components.
- 6. Check that all guards and shields are in place, secured and functioning as designed.



WARNING





ROTATING PART HAZARD

To prevent serious injury or death from rotating parts:

- Place all controls in neutral or off, stop engine or motor, remove ignition key or disable power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging
- Install and secure all guards / shields before operating
- Do not operate with rotating parts exposed

OPERATION

Functions

The Teleswing auger adds two functions to a normal swing auger.

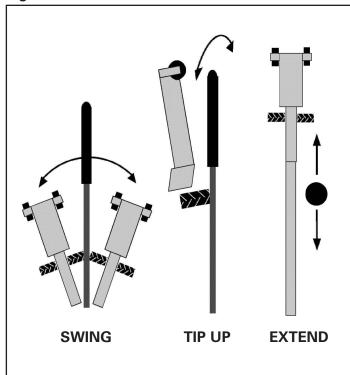
- The ability to extend and retract.
- The ability to tilt the end of the hopper up or down.

This allows the machine to either extend or swing. The swing auger also has power swing.

All controls for these functions are conveniently located at the end of the swing tube where the operator has easy access to the handles on the trailer for opening the chute gates.

The controls are clearly identified on the label by the controls [Figure 11].

Figure 11



The tractor hydraulic flow to this unit should be turned down. This will help prevent damage to the equipment and the operator. The flow should be turned down to the point where the operator is comfortable with the swing speed and the retraction speed while holding onto the controls.

As with all swing augers. It is possible for the swing to overfeed the main auger if the main auger is approaching or exceeding its maximum angle. The auger capacity drops significantly with increased angle. Whereas the angle on the swing changes very little in comparison, so it is possible for the swing to overfeed the main auger.





Avoid over retraction. Stop retracting once the collector edge reaches the Teleswing decal (Item 1).

The splined shaft will become disengaged if the tube is over retracted.

⚠ V

WARNING



AVOID INJURY OR DEATH

Avoid over retraction of the auger tube. Possibility of contact of chainbox (Item 1) with operator's vehicle.

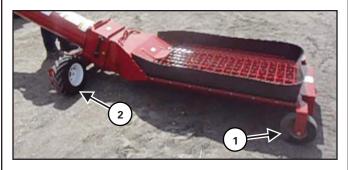
Order of Operations



Before operation:

- Fully extend the Farm King auger hitch
- Make sure the PTO is at optimal length for operation
- 1. Position auger over bin for unloading.
- 2. Lower the Teleswing from transport and swing around to appropriate unloading position. The Teleswing should be perpendicular to auger.
- 3. Fully retract the Teleswing.
- 4. Move the unloading unit into position. Center the discharge chutes of the unloading unit 2 ft. from the end of the Teleswing hopper.
- Lower the Teleswing hopper tip and extend hopper under unloading unit.
- 6. Raise hopper tip slightly off the ground and swing to position roughly centered below appropriate discharge chute.
- 7. Lower hopper tip onto ground.
- 8. ENGAGE PTO on tractor or power unit.
- 9. Unload until empty and close chute.
- 10. Raise hopper tip and swing to the other chute. Lower hopper tip onto ground once in position.
- 11. Unload until empty and close chute.
- 12. DISENGAGE PTO on tractor or power unit.
- 13. Fully retract the Teleswing auger.
- 14. Move the next unloading unit into position.





During Swing: Tip hopper up to raise hand truck wheels (Item 1).

During Extension: Tip hopper down to raise drive wheels (Item 2).



The Teleswing auger may be swung or retracted freely with the PTO running as long as the spline shaft at the top does not become disengaged.

On the 13" Teleswing auger there is 20" of free movement back from full extension.



WARNING

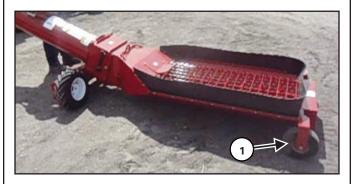


13" Teleswing Models: Do NOT exceed 540 RPM PTO

- Keep PTO shields and all guards in place
- · Keep away from moving parts
- Keep bystanders away

Adjustments



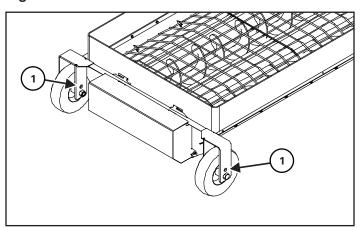


The Teleswing may not be able to tilt high enough to raise the wheels (Item 1) when operating the auger near maximum height.

Adjust the Teleswing as required when operating near maximum height.

Adjusting hand truck wheels:

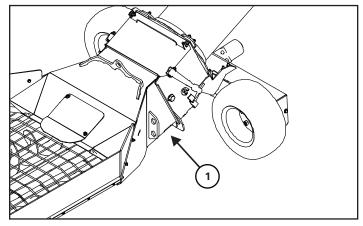
Figure 12



Remove the 3/4" x 5-1/2" bolts and 3/4" lock nuts from the wheel mounts. Move wheels up to the top hole (Item 1) on the mounts and reinstall hardware [Figure 12].

Adjusting hydraulic tilt cylinder:

Figure 13



Extend the rod end of the tilt hydraulic cylinder (Item 1) by loosening the set screw on the yoke and unthreading the yoke from the rod [Figure 13].

Unthread the yoke three full rotations. The amount to be unthreaded may vary.

It is possible to unthread the yoke too far, which will cause the drive wheels to drag when trying to retract/extend with the auger in the lowest position.

Make sure that the yoke is not unthreaded more than is required.

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MAINTENANCE

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TROUBLESHOOTING

Chart



WARNING

Instructions are necessary before operating or servicing equipment. Read and understand the Operator And Parts Manual and safety signs (decals) on equipment. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

NOTE: If a problem is encountered that is difficult to solve, even after having read through this troubleshooting section, please call your local Farm King dealer. Before you call, please have this Operator And Parts Manual and the serial number of your machine at hand.

PROBLEM	CAUSE	CORRECTION
Connet start augere	Plugged auger or obstruction.	Shutoff tractor and disconnect the PTO. Remove obstruction.
Cannot start augers.	Bearing failure.	Check bearings and replace if required.
Grain flow is too fast.	Discharge gate(s) open too far.	Close the gate(s) to allow a slower grain flow to the hopper / intake auger.
Grain flow is too slow.	Discharge gate(s) not open enough.	Open the gate(s) to allow a faster grain flow to the hopper intake auger.
	Tractor RPM set to low.	Raise tractor RPM to proper setting.
Unit will not extend or retract completely.	Chainbox shaft is not aligned properly.	Align the splined shaft so that it is centered. See "Chainbox Shaft Adjustment" on page 25.

SERVICE SCHEDULE

Maintenance Intervals

Maintenance work must be done at regular intervals. Failure to do so will result in excessive wear and early failures. The service schedule is a guide for correct maintenance of the equipment.



WARNING

Instructions are necessary before operating or servicing equipment. Read and understand the Operator and Parts Manual and safety signs (decals) on equipment. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

Item	DECODIDITION	SERVICE PROCEDURES				
item	DESCRIPTION	Check	Clean	Lube	Change	Cover
Daily Ma	intenance (or every 8 hours)					
1	Bushing - Hopper Feed Screw			•		
2	Bushing - Hopper Jack Shaft			•		
3	Bushing -Transition Screw			•		
Every 80	Hours					
4	U-Joint - Lower Hopper			•		
5	U-Joint - Upper Hopper			•		
6	U-Joint - Collector			•		
7	Hopper Chain Drive	•		•		
8	Spline Shaft	•	•	•		
9	Chain Box Chain Drive	•		•		
Every 20	0 Hours					
10	Bearings - Hopper Feed Screw			•		
11	Bearings - Jack Shaft			•		
12	Bearings - Chain Box			•		
13	Gearbox - Collector (Oil SAE 90)	•			•	

TIRE PRESSURE



CAUTION



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

Check tire pressure daily. Fill tires per tire manufacturer's recommendation. See side wall of tire for inflation requirements.



WARNING

AVOID INJURY OR DEATH

Always chock tires before performing any maintenance or service.

LUBRICATION

Always use a good quality multi-purpose / lithium base grease when lubricating the equipment.

- Always use a hand-held grease gun.
- Clean fitting before greasing, to avoid injecting dirt and grit.
- Replace and repair broken fittings immediately.
- If fittings will not take grease, remove and clean thoroughly. Replace fitting if necessary.

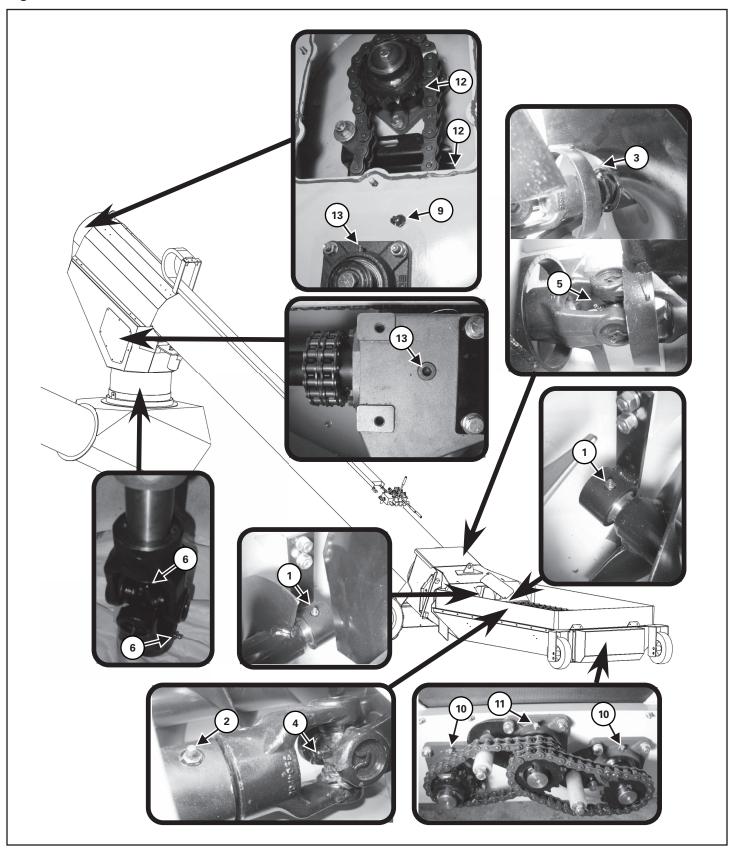


IMPORTANT

Fluid such as engine oil, hydraulic fluid, coolants, grease, etc. must be disposed of in an environmentally safe manner. Some regulations require that certain spills and leaks on the ground must be cleaned in a specific manner. See local, state and federal regulations for the correct disposal.

Lubrication Locations

Figure 14



STORAGE AND RETURN TO SERVICE

Storage

Sometimes it may be necessary to store the equipment for an extended period of time. Below is a list of items to perform before storage.



DO NOT permit children to play on or around the stored machine.

- Thoroughly wash the machine with a pressure washer or water hose to remove all dirt, mud, debris or residue.
- Lubricate all bushings to remove any water residue from washing.
- Remove any material that has become entangled around any moving part.
- Inspect the hitch and all welds on the equipment for wear and damage.
- Check for loose hardware, missing guards, or damaged parts.
- Check for damaged or missing safety signs (decals).
 Replace if necessary.
- Replace worn or damaged parts.
- Touch up all paint nicks and scratches to prevent rusting.
- Place the equipment in a dry protected shelter.

NOTE: If a dry protected shelter is not available, cover with a waterproof tarp and tie down securely.

Support the jack / frame with planks if required.

Return To Service

After the equipment has been in storage, it is necessary to follow a list of items to return the equipment to service.

- Be sure all shields and guards are in place.
- Lubricate the equipment.
- Connect to a tractor and operate equipment, verify all functions operate correctly.
- Check for leaks. Repair as needed.

SAFETY SIGN (DECAL) INSTALLATION



When replacing safety signs (decals), the temperature must be above 10° C (50° F).

- Remove all portions of the damaged safety sign (decal).
- Thoroughly clean the area with adhesive remover and glass cleaner. Remove all adhesive residue.
- Allow the area to dry completely before installing the new safety sign (decal).
- Position the safety sign (decal) in the correct location.
- Remove a small portion of the backing paper on the safety sign (decal).
- Press on the safety sign (decal) where the backing paper has been removed.
- Slowly remove the remaining backing paper, pressing on the safety sign (decal) as the backing paper is removed.
- Using the backing paper, pressing firmly, move the backing paper over the entire safety sign (decal) area.

NOTE: Small air pockets can be pierced with a pin and smoothed out using the piece of the backing paper.

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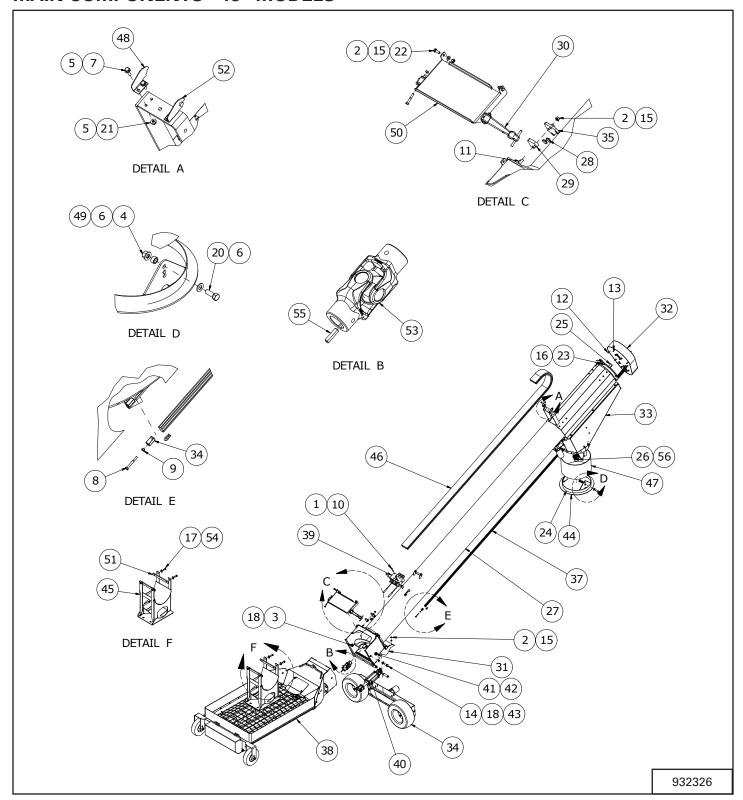
PARTS IDENTIFICATION

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GENERAL PARTS INFORMATION

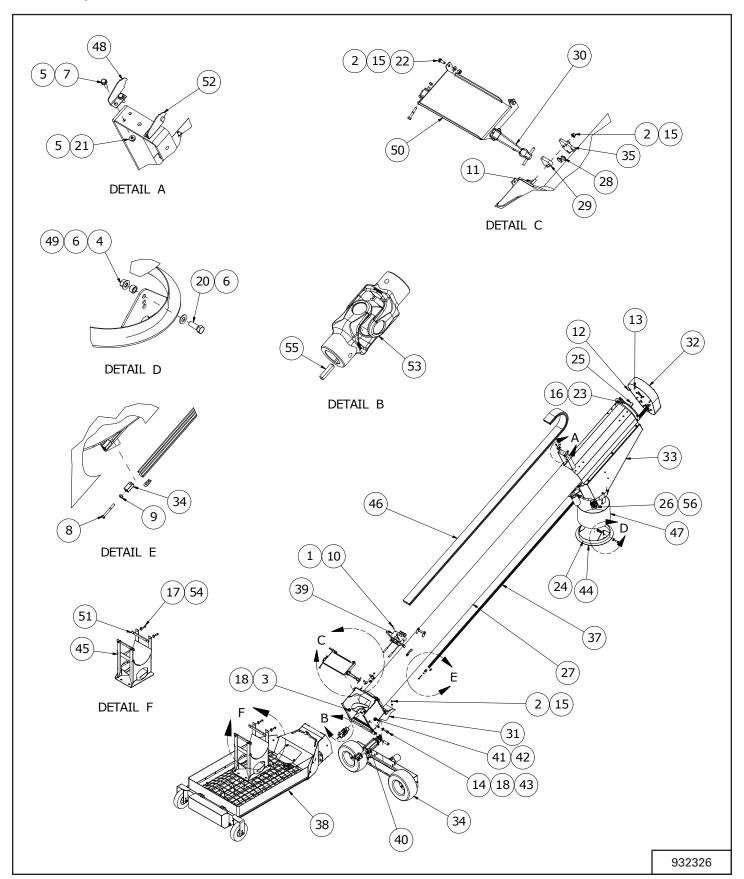
The parts identification section list descriptions, part numbers and quantities for all North America Base Model Teleswing. Contact your Farm King dealer for additional parts information.

MAIN COMPONENTS - 13" MODELS



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	812362	5/16" LOCK NUT (PL)	3
2	812363	3/8" LOCK NUT (PL)	14
3	812365	3/4" LOCK NUT (PL)	2
4	812482	5/8" LOCK NUT (PL)	2
5	812624	1/4" FLAT WASHER PL	8
6	812639	WASHER 0.625 SAE FLAT BS PL	4
7	81527	1/4" X 1" HEX BOLT (PL)	4
8	81532	1/4" X 2 1/4" HEX BOLT GR5 (PL)	2
9	81544	1/4" HEX NUT (PL)	2
10	81558	5/16" X 2 3/4" HEX BOLT GR5 (PL)	3
11	81578	3/8" X 1 3/4" HEX BOLT (PL)	8
12	81598	7/16" X 1 1/4" HEX BOLT (PL)	6
13	81599	7/16" X 1 1/2" HEX BOLT (PL)	1
14	81681	3/4" X 1 1/2" HEX BOLT (PL)	2
15	84039	WASHER - 3/8" SAE FLAT (PL)	14
16	84041	7/16" SAE FLAT WASHER (PL)	7
17	84049	9/16" SAE FLAT WASHER (PL)	4
18	84050	3/4" S.A.E. FLAT WASHER (PL)	4
19	84270	5/8" X 1 3/4" HEX BOLT (PL)	1
20	84299	5/8" X 2" HEX BOLT GR.5 (PL)	1
21	84498	1/4" LOCK NUT (PL)	4
22	86170	3/8" X 1" HEX BOLT GR.5 (PL)	2
23	86273	7/16" LOCK NUT (PL)	7
24	917706	CLAMP HOSE-15.375TO 17.375	2
25	930439	WELDT-MAIN FLTG	1
26	930508	DOUBLE JOINT - CAT 3, 50 DEG	1
27	930847	WELDT-RETRACTOR	1
28	931528	WEAR BUTTON	8
29	931529L	PLATE - SWIVEL SPACER BLOCK	4
30	931530	HOOD CATCH KIT	2
31	931533	WELDT -TRANSITION BOX	1
32	931584	ASSY - CHAINBOX	1
33	931641	ASSY - 13" XTENDS COLLECTOR	1
34	931725	ASSY - WHEEL DRIVE	1
35	931733L	PLATE - SWIVEL FLANGE HOLDER	4
36	931810	THREADED CHAINTIGHTENER	2
37	931813	RETRACTOR RACK CHAIN	1
38	932029	ASSY - 13"TELESWING HOPPER	1
39	932080	Q45 3 SPOOL HYDRAULIC VALVE	1
40	932085	CYLINDER, 2.5" BORE X 3" STROKE	1
41	932117	10-24 X 3/4 PAN HEAD MACH. SCREW GR.5 (PL)	4

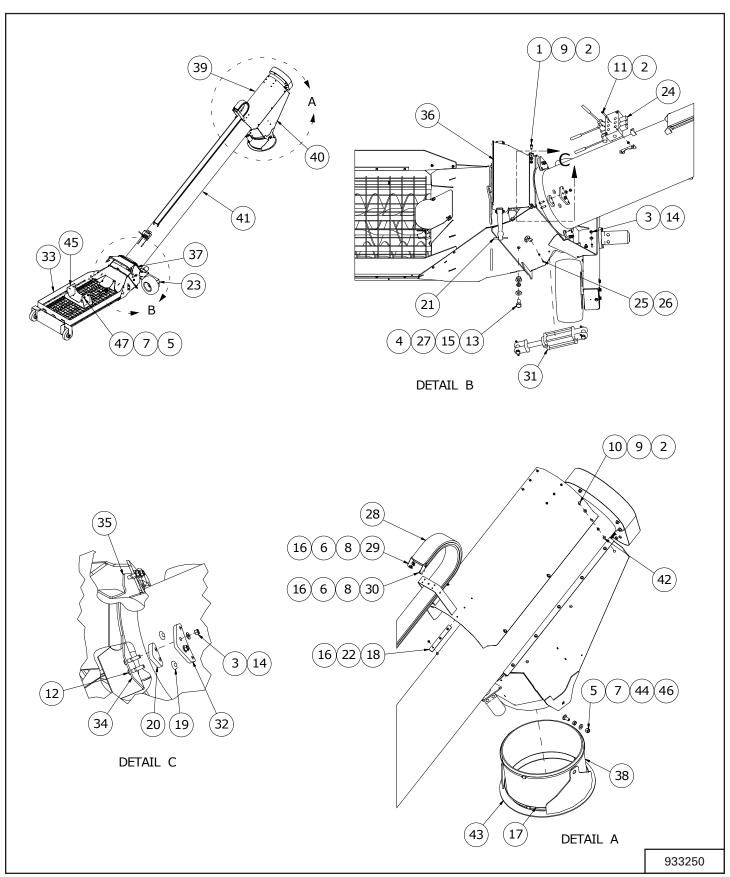
Main Components - 13" Models Cont.





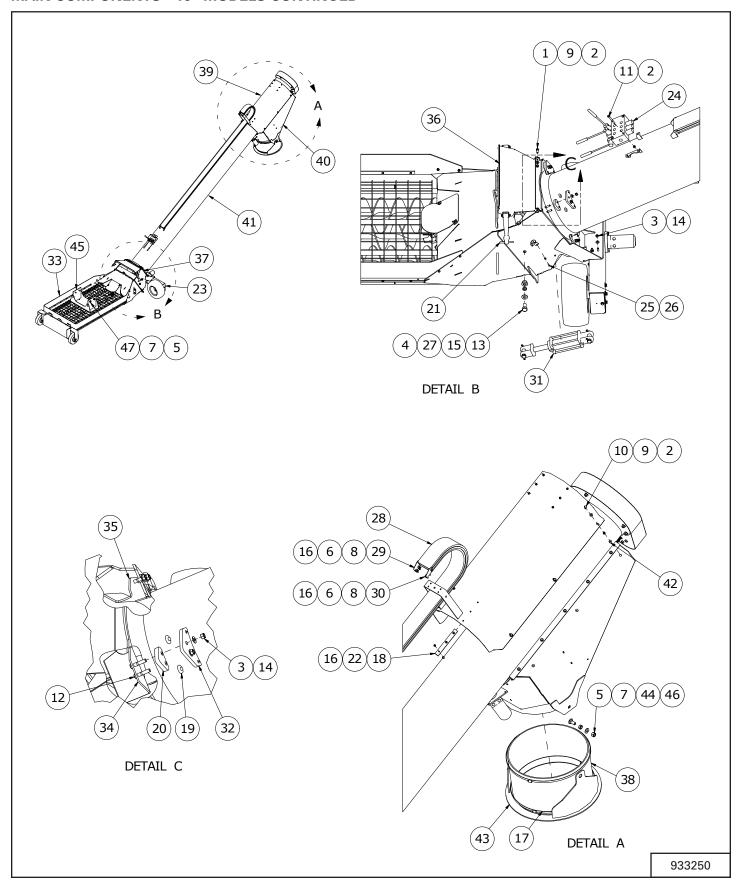
ITEM	PART NUMBER	DESCRIPTION	QTY.
42	932118	#10-24 LOCK NUT (PL)	4
43	932242	HOPPER SWIVEL BUSHING	2
44	932245	WELDT - SWIVEL RING	1
45	932290	WELDT - WINCH MOUNT	1
46	932295	ENERGY CHAIN	12 FT
47	932304	COVER - COLLECTOR PIVOT	1
48	932306	ENERGY CHAIN MOUNTING BRACKET	1
49	932309	SWIVEL RING SPACER BUSHING	2
50	932320	WELDT -TRANSITION LID	1
51	932355	PLATE -THREADED BACKING PLATE	2
52	932410	ENERGY CHAIN MOUNTING BRACKET	1
53	933153	U-JOINT 1-1/4" X 1-1/4"	1
54	934626	9/16" x 1 1/4" HEX BOLT GR.5 (PL)	4
55	960177	KEY 0.250" SQ	2
56	960180	U-JOINT & SPROCKET KEY .313"SQ. X 1.375"	1

MAIN COMPONENTS - 16" MODELS



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	812026	5/16" X 1" HEX BOLT (PL)	2
2	812362	5/16" LOCK NUT (PL)	11
3	812363	3/8" LOCK NUT (PL)	12
4	812365	3/4" LOCK NUT (PL)	2
5	812482	5/8" LOCK NUT (PL)	6
6	812624	1/4" FLAT WASHER PL	8
7	812639	WASHER 0.625 SAE FLAT BS PL	6
8	81527	1/4" X 1" HEX BOLT (PL)	4
9	81546	5/16" FLAT WASHER (PL)	8
10	81553	5/16" X 1 1/2" HEX BOLT (PL)	6
11	81558	5/16" X 2 3/4" HEX BOLT GR5 (PL)	3
12	81578	3/8" X 1 3/4" HEX BOLT (PL)	8
13	81681	3/4" X 1 1/2" HEX BOLT (PL)	2
14	84039	WASHER - 3/8" SAE FLAT (PL)	12
15	84050	3/4" S.A.E. FLAT WASHER (PL)	4
16	84498	1/4" LOCK NUT (PL)	16
17	914429	CLAMP HOSE-2.06 TO 21.25	2
18	931392	PLATE - COLLECTOR COVER WEAR STRIP	4
19	931528	WEAR BUTTON	8
20	931529L	PLATE - SWIVEL SPACER BLOCK	4
21	931530	HOOD CATCH KIT	2
22	931640	1/4" X 1" FLAT SOCKET CAP SCREW GR.5 (PL)	12
23	931725	ASSY - WHEEL DRIVE	1
24	932080	Q45 3 SPOOL HYDRAULIC VALVE	1
25	932117	10-24 X 3/4 PAN HEAD MACH. SCREW GR.5 (PL)	4
26	932118	#10-24 LOCK NUT (PL)	4
27	932242	HOPPER SWIVEL BUSHING	2
28	932295	ENERGY CHAIN	12 FT
29	932306	ENERGY CHAIN MOUNTING BRACKET	1
30	932410	ENERGY CHAIN MOUNTING BRACKET	1
31	932667	CYLINDER, 2.5" BORE X 4" STROKE	1
32	932668L	PLATE - FLANGE HOLDER	4
33	932673	ASSY - 16"TELESWING HOPPER	1
34	932764	BRKT - INNER BOLT BRACE RIGHT	1
35	932765	BRKT - INNER BOLT BRACE LEFT	1
36	932771	WELDT -TRANSITION LID	1
37	932772	WELDT - RETRACTOR BOX	1
38	932931	COVER-INPUT BOX PIVOT	1
39	932939	WELDT - COLLECTOR COVER	1
40	932941	ASSY - COLLECTOR	1
41	933073	ASSY - INTAKETUBE	1

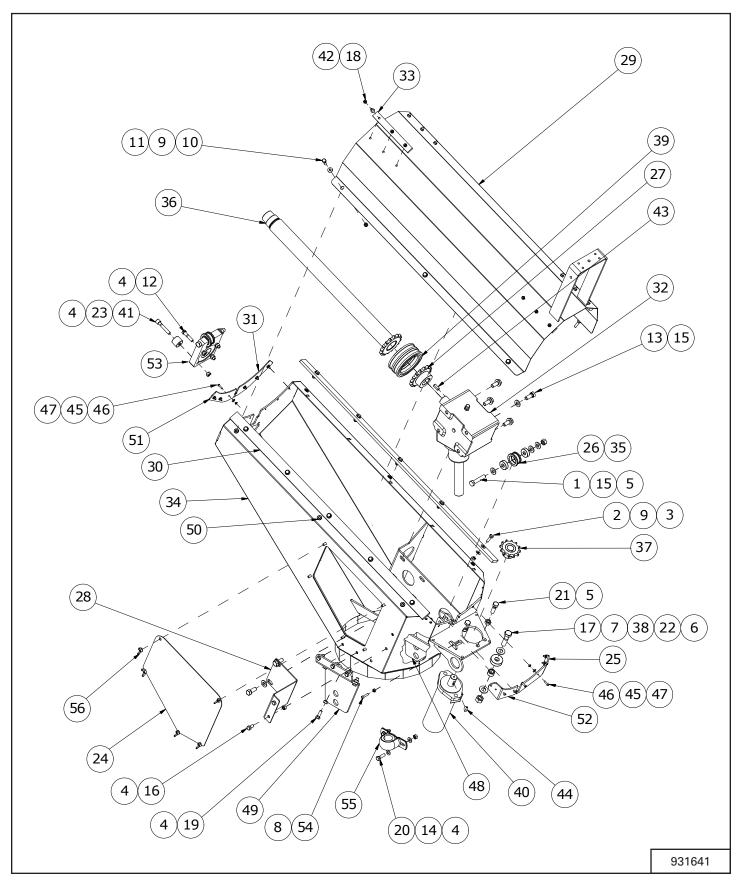
MAIN COMPONENTS - 16" MODELS CONTINUED





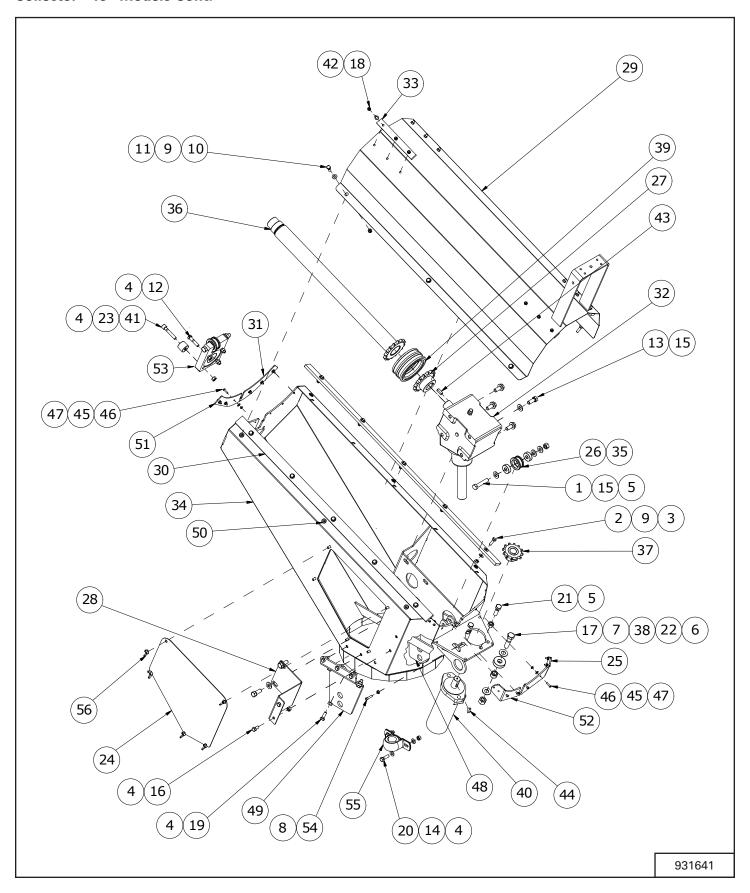
ITEM	PART NUMBER	DESCRIPTION	QTY.
42	933165	5/16 - 18 UNC RIBBED RIVET NUT	6
43	933204	WELDT - SWING RING	1
44	933205	SWING RING BUSHING	2
45	933208	WELDT - WINCH MOUNT	1
46	934717	5/8 X 1 3/4 CARR. BOLT GR.5 (YZ PL)	2
47	981664	5/8 X 2 1/4" HEX BOLT GR.5 (PL)	4

COLLECTOR - 13" MODELS



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	811796	1/2" X 2 1/2" HEX BOLT GR5 (PL)	1
2	812026	5/16" X 1" HEX BOLT (PL)	10
3	812362	5/16" LOCK NUT (PL)	10
4	812363	3/8" LOCK NUT (PL)	20
5	812364	1/2" LOCK NUT (PL)	3
6	812482	5/8" LOCK NUT (PL)	1
7	812639	WASHER 0.625 SAE FLAT BS PL	2
8	81544	1/4" HEX NUT (PL)	1
9	81546	5/16" FLAT WASHER (PL)	26
10	81553	5/16" X 1 1/2" HEX BOLT (PL)	6
11	81568	5/16" HEX NUT (PL)	6
12	81578	3/8" X 1 3/4" HEX BOLT (PL)	2
13	81620	1/2" X 1 1/4" HEX BOLT PL	6
14	84039	WASHER - 3/8" SAE FLAT (PL)	4
15	84048	1/2" SAE FLAT WASHER (PL)	9
16	84072	3/8" X 3/4" HEX BOLT (PL)	2
17	84335	5/8 X 2 1/2" HEX BOLT (PL)	1
18	84498	1/4" LOCK NUT (PL)	12
19	86170	3/8" X 1" HEX BOLT GR.5 (PL)	12
20	86171	3/8" X 1 1/4" HEX BOLT (PL)	2
21	87553	1/2" X 1 3/4" HEX BOLT (PL)	2
22	930980	PINION ROLLER SPACER	1
23	930982	COLLECTOR STOP	2
24	930985L	PLATE - DOOR	1
25	930986	PINION RIGHT SIDE SEAL	1
26	930989	TRACK ROLLER	1
27	930991	WELDT - 16TOOTH SPROCKET AND HUB	1
28	930994	BRKT - GEARBOX Z BRACKET	1
29	930997	WELDT - COLLECTOR COVER	1
30	931005	PLATE - WEAR STRIP	2
31	931009	PLATE - CB LEFT SIDE SEAL	1
32	931010	4168 GEARBOX-UPPER 68 DEG	1
33	931392	PLATE - COLLECTOR COVER WEAR STRIP	4
34	931399	WELDT - COLLECTOR	1
35	931427	TRACK ROLLER BEARING	2
36	931592	WELDT - SPLINETUBE	1
37	931593	WELDT - PINION SPROCKET	1
38	931594	PINION ROLLER	1
39	931596	DOUBLE 60 CHAIN	1
40	931597	BRAKE MOTOR	1
41	931616	3/8" X 2-1/4" SOCKET CAP SCREW GR.5 (PL)	2

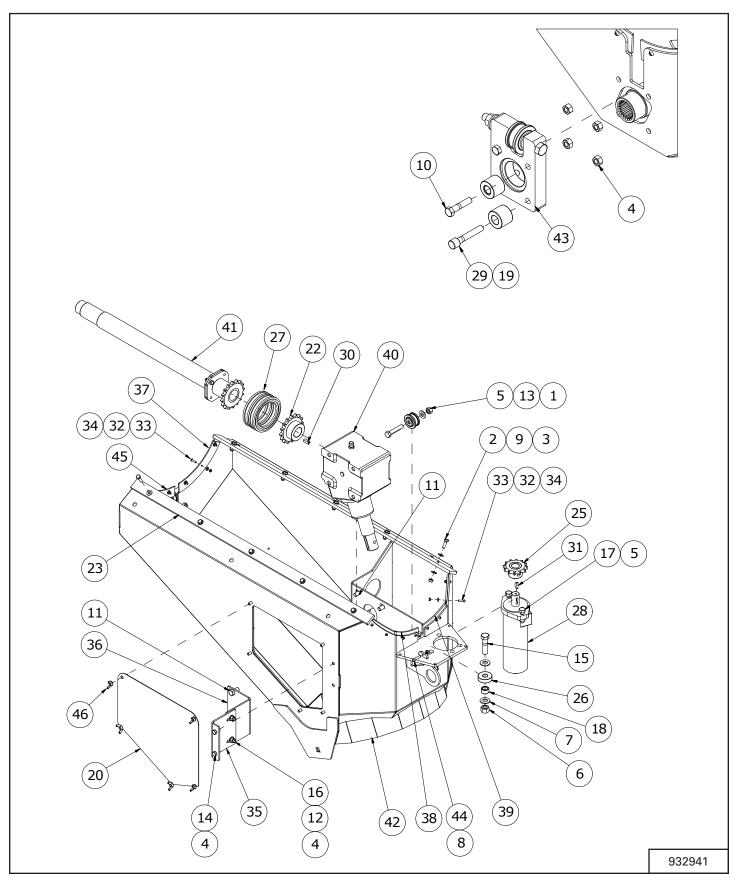
Collector - 13" Models Cont.





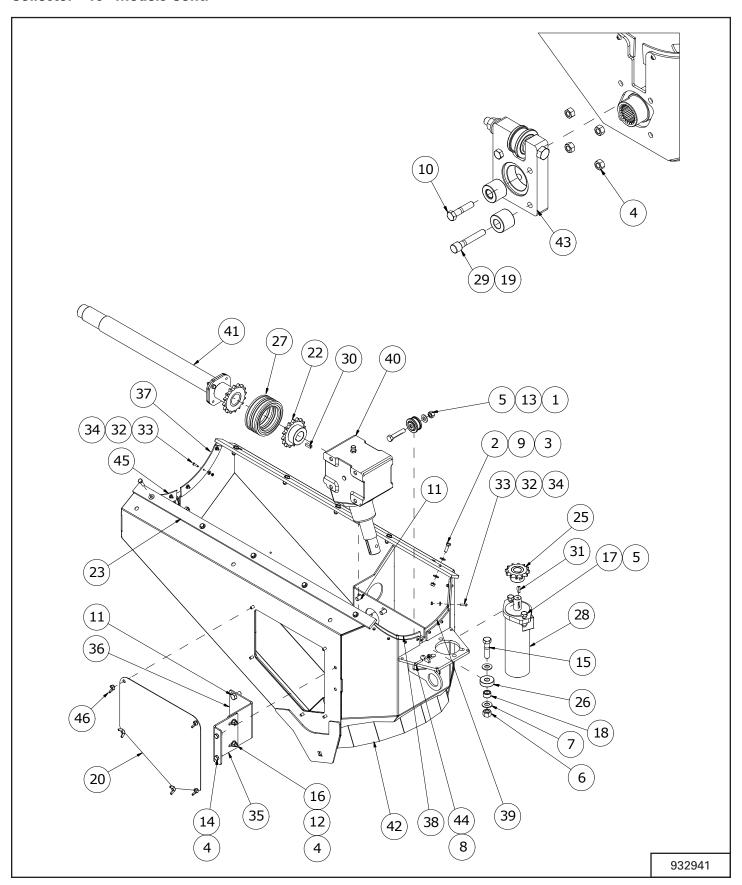
ITEM	PART NUMBER	DESCRIPTION	QTY.
42	931640	1/4" X 1" FLAT SOCKET CAP SCREW GR.5 (PL)	12
43	931662	5/16" X 5/16" X 1" KEY	1
44	932110	808 WOODRUFF KEY	1
45	932116	#10 FLAT WASHER PL	14
46	932117	10-24 X 3/4 PAN HEAD MACH. SCREW GR.5 (PL)	14
47	932118	#10-24 LOCK NUT (PL)	14
48	933133	WELDT - RIGHT SWING RING MOUNT BRACE	1
49	933134	WELDT - LEFT SWING RING MOUNT BRACE	1
50	933165	5/16 - 18 UNC RIBBED RIVET NUT	6
51	934237	PLATE - CB RIGHT SIDE SEAL	1
52	934238	PINION LEFT SIDE SEAL	1
53	934701	ASSY - ROLLER FLANGE	1
54	934732	1/4" X 1 1/2" SOCKET CAP SCREW FULLTHR GR.5	1
55	960789	WOODEN BEARING (1 3/8")	1
56	968601	5/16" WING NUT	5

COLLECTOR - 16" MODELS



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	811796	1/2" X 2 1/2" HEX BOLT GR5 (PL)	1
2	812026	5/16" X 1" HEX BOLT (PL)	10
3	812362	5/16" LOCK NUT (PL)	10
4	812363	3/8" LOCK NUT (PL)	8
5	812364	1/2" LOCK NUT (PL)	3
6	812482	5/8" LOCK NUT (PL)	1
7	812639	WASHER 0.625 SAE FLAT BS PL	2
8	81544	1/4" HEX NUT (PL)	1
9	81546	5/16" FLAT WASHER (PL)	20
10	81578	3/8" X 1 3/4" HEX BOLT (PL)	2
11	81619	1/2" X 1" HEX BOLT (PL)	6
12	84039	WASHER - 3/8" SAE FLAT (PL)	2
13	84048	1/2" SAE FLAT WASHER (PL)	3
14	84072	3/8" X 3/4" HEX BOLT (PL)	2
15	84335	5/8 X 2 1/2" HEX BOLT (PL)	1
16	86170	3/8" X 1" HEX BOLT GR.5 (PL)	2
17	87553	1/2" X 1 3/4" HEX BOLT (PL)	2
18	930980	PINION ROLLER SPACER	1
19	930982	COLLECTOR STOP	2
20	930985L	PLATE - DOOR	1
21	930989	TRACK ROLLER	1
22	930991	WELDT - 16TOOTH SPROCKET AND HUB	1
23	931005	PLATE - WEAR STRIP	2
24	931427	TRACK ROLLER BEARING	2
25	931593	WELDT - PINION SPROCKET	1
26	931594	PINION ROLLER	1
27	931596	DOUBLE 60 CHAIN	1
28	931597	BRAKE MOTOR	1
29	931616	3/8" X 2-1/4" SOCKET CAP SCREW GR.5 (PL)	2
30	931662	5/16" X 5/16" X 1" KEY	1
31	932110	808 WOODRUFF KEY	1
32	932116	#10 FLAT WASHER PL	14
33	932117	10-24 X 3/4 PAN HEAD MACH. SCREW GR.5 (PL)	14
34	932118	#10-24 LOCK NUT (PL)	14
35	932914	BRKT - GEARBOX Z MOUNT A	1
36	932915	BRKT - GEARBOX Z MOUNT B	1
37	932924	UPPER COLLECTOR END SEAL	1
38	932925	PINION END SEAL LEFT	1
39	932926	PINION END SEAL RIGHT	1
40	932927	4168 GEARBOX-UPPER 68 DEG	1
41	932932	ASSY - SPLINETUBE	1

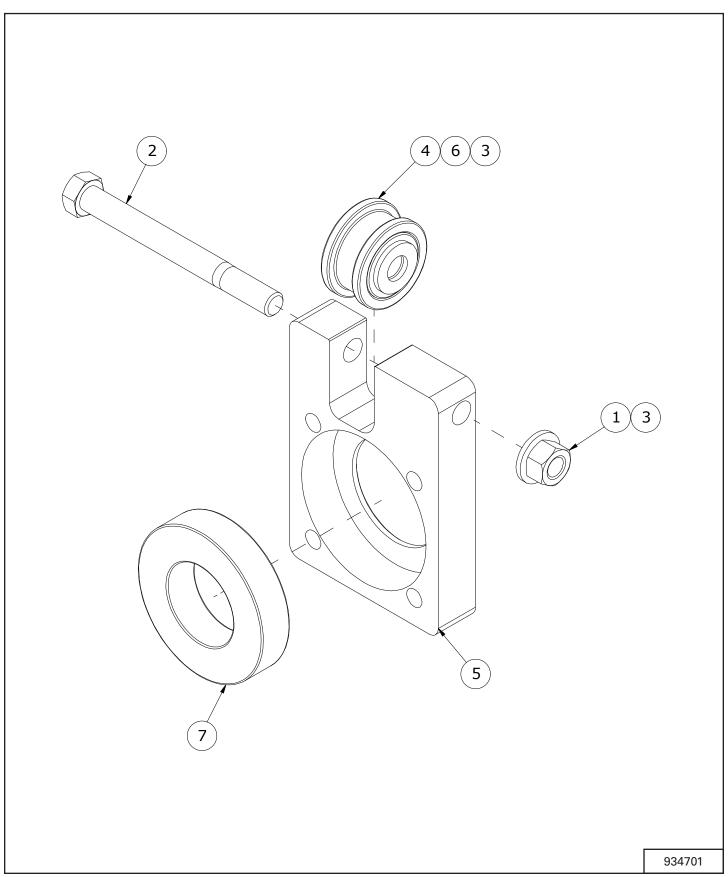
Collector - 16" Models Cont.





ITEM	PART NUMBER	DESCRIPTION	QTY.
42	932940	WELDT - COLLECTOR	1
43	934701	ASSY - ROLLER FLANGE	1
44	934732	1/4" x 1 1/2" SOCKET CAP SCREW FULLTHR GR.5	1
45	934757	UPPER COLLECTOR END SEAL - LEFT	1
46	968601	5/16" WING NUT	5

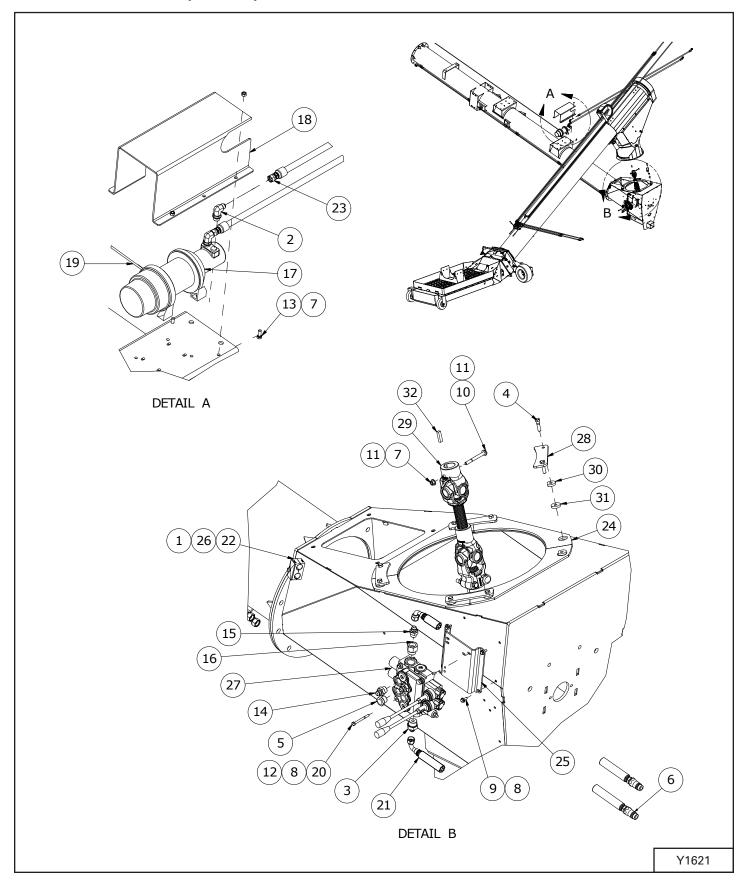
ROLLER FLANGE





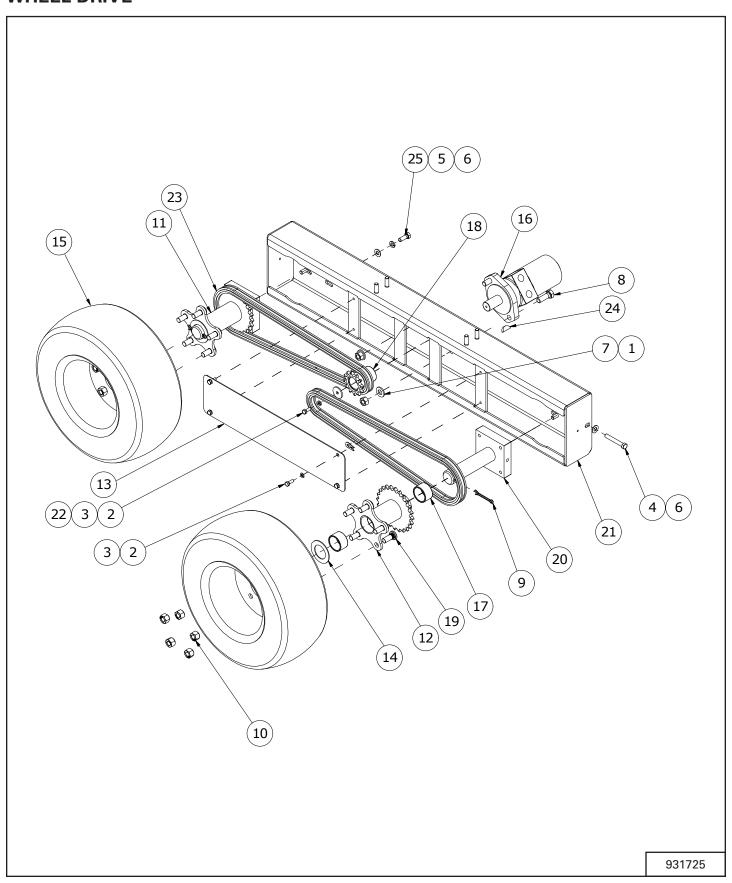
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	812364	1/2" LOCK NUT (PL)	1
2	81633	1/2 X 5" HEX BOLT (PL)	1
3	84048	1/2" SAE FLAT WASHER (PL)	3
4	930989	TRACK ROLLER	1
5	930990	PLATE - ROLLER FLANGE	1
6	931427	TRACK ROLLER BEARING	2
7	931599	SPLINETUBE BEARING	1

HYDRAULIC WINCH, VALVE, DRIVELINE - 16" MODELS



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	810761	5/16" X 2 1/2" HEX BOLT (PL)	1
2	811416	ELBOW-10 MORB X -8 MJIC, 90 DEG	2
3	811748	ADAPTOR -12 MORB X -8 MJIC	1
4	811792	3/8" X 1 1/2" HEX BOLT GR.5 (PL)	8
5	811970	#10 (7/8") MORB STEEL PLUG	2
6	812208	NIPPLE 1/2" BODY 1/2"-14 NPTF QUICK CONNECT	2
7	812363	3/8" LOCK NUT (PL)	5
8	812624	1/4" FLAT WASHER PL	7
9	81525	1/4" X 3/4" HEX BOLT (PL)	4
10	81585	3/8" X 3 1/2" HEX BOLT (PL)	1
11	84039	WASHER - 3/8" SAE FLAT (PL)	2
12	84498	1/4" LOCK NUT (PL)	3
13	86170	3/8" X 1" HEX BOLT GR.5 (PL)	4
14	886897	ADAPTOR STR 7/8MORB X 3/4MJIC S	2
15	909935	ADAPTOR CHECK VALVE (#8 MORB - #8 MJIC)	1
16	909936	ADAPTER-12MORB X -8FORB	1
17	910483	WARN HYDRAULIC WINCH	1
18	910490	HYD. WINCH SHIELD 7GA	1
19	910508	WINCH CABLE ASSEMBLY (1/4")	1
20	910523	1/4" X 2 3/4" HEX BOLT (PL)	3
21	912250	HOSE 1/2" X 138 1/2" MNPT X 3/4" SWFJIC 90	2
22	914640	HOSE CLAMP-TWIN 0.787 DIA	1
23	914931	HOSE-8 X -8FJIC X -8FJIC 90 DEG	2
24	915902	SPACER-INTAKE	4
25	916959	BRKT-VALVE MOUNT	1
26	917014	COVER-TWIN CLAMP 3D	1
27	917223	ASSEMBLY-VALVE W/HANDLEVERS	1
28	933203L	PLATE - SWING RING HOLD DOWN	4
29	933311	ASSY - DRIVELINE	1
30	933325L	PLATE - HOLD DOWN SPACER	8
31	960494	1/4"W X 13/32"ID X 1 1/4"OD WASHER (PL)	8
32	960704	SPROCKET KEY 3/8"SQ X 1 1/2"LG	1

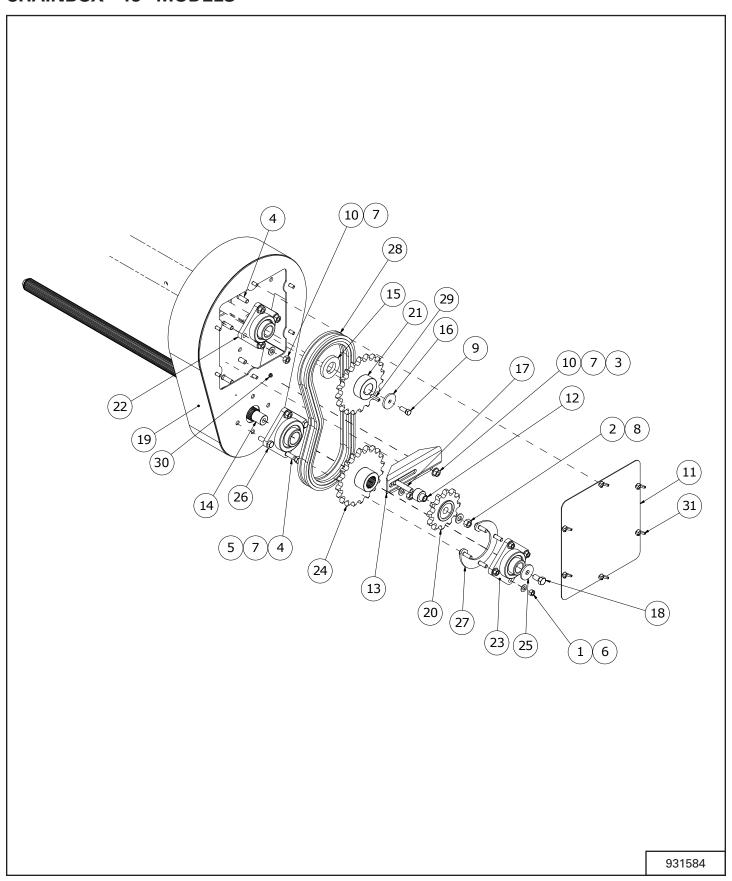
WHEEL DRIVE





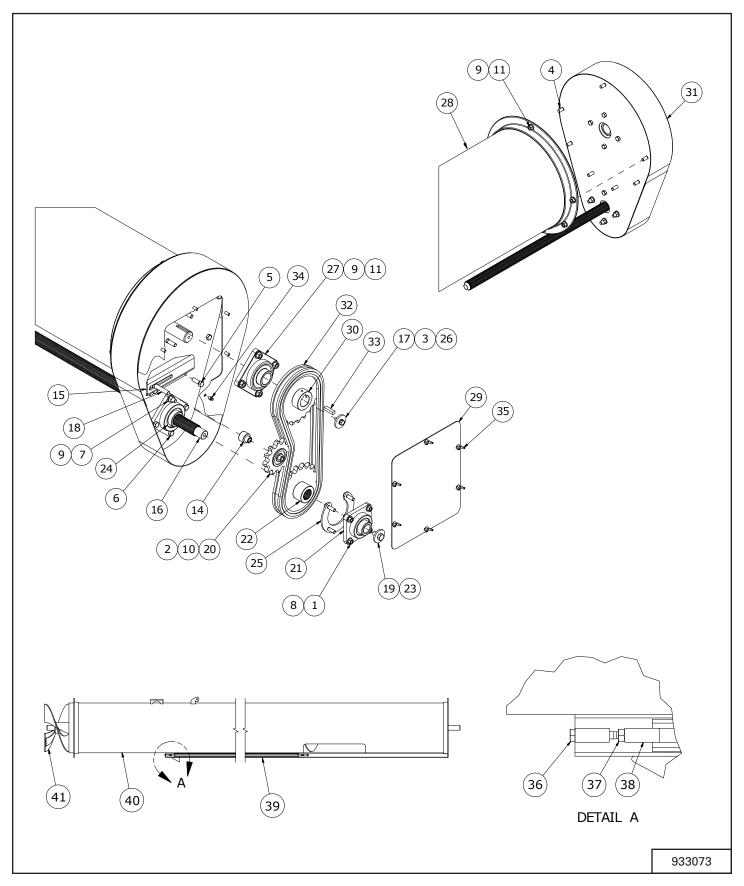
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	812364	1/2" LOCK NUT (PL)	2
2	81525	1/4" X 3/4" HEX BOLT (PL)	5
3	81545	1/4" LOCK WASHER (PL)	5
4	81581	HEX BOLT 0.375 X 2.50	2
5	81593	3/8" LOCK WASHER (PL)	8
6	84039	WASHER - 3/8" SAE FLAT (PL)	10
7	84048	1/2" SAE FLAT WASHER (PL)	2
8	84277	1/2" X 1 1/2" HEX BOLT (PL)	2
9	909843	3/16" X 2" COTTER PIN (PL)	2
10	915665	WHEEL STUD NUT-WB11	10
11	931697	WELDT - INNER ROTATING HUB	1
12	931698	WELDT - OUTER ROTATING HUB	1
13	931703L	PLATE - FRONT STIFFENER	1
14	931705L	PLATE - OUTER WASHER	2
15	931708	16X6.50-8 SUPER LUG 5 BOLT	2
16	931710	WHEEL DRIVE MOTOR	1
17	931712	WHEEL DRIVE BUSHING	4
18	931713	WELDT - DRIVE SPROCKET HUB	1
19	931722	1-1/4" X 1/2" UNF WHEEL STUD GR.8	10
20	931723	WELDT -TIGHTENER HUB	2
21	931724	WELDT - CENTER DRIVE BODY	1
22	931730L	PLATE - WASHER	1
23	932062	WHEEL DRIVE CHAIN	2
24	932110	808 WOODRUFF KEY	1
25	967270	3/8" X 1" SHEAR BOLT GR8 (PL)	8

CHAINBOX - 13" MODELS



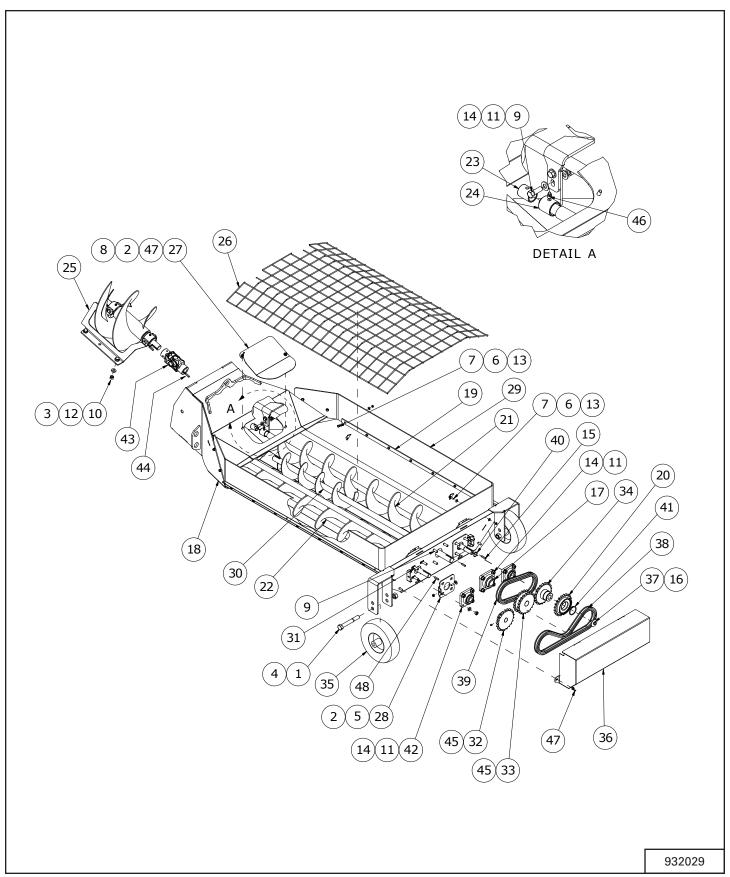
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	812363	3/8" LOCK NUT (PL)	
2	812364	1/2" LOCK NUT (PL)	1
3	81597	7/16" X 1" HEX BOLT (PL)	2
4	81599	7/16" X 1 1/2" HEX BOLT (PL)	8
5	81614	7/16" HEX NUT (PL)	4
6	84039	WASHER - 3/8" SAE FLAT (PL)	4
7	84041	7/16" SAE FLAT WASHER (PL)	10
8	84048	1/2" SAE FLAT WASHER (PL)	1
9	86170	3/8" X 1" HEX BOLT GR.5 (PL)	1
10	86273	7/16" LOCK NUT (PL)	6
11	930949L	PLATE - CHAIN BOX DOOR	1
12	930950	TIGHTENER SPROCKET SPACER	1
13	930952	BRKT-TIGHTENER Z BRACKET	1
14	930953	SPLINED SHAFT	1
15	930968L	PLATE - UPPER DRIVE SPACER	1
16	930969L	PLATE - UPPER WASHER CB	1
17	931428	1/2 X 2.5" CARRIAGE BOLT GR.5 (YZ PL)	
18	931431	1/2" X 1" UNF HEX BOLT GR.8 (YZ PL)	
19	931501	WELDT - CHAINBOX	1
20	931505	IDLER SPROCKET 80 CHAIN 12TEETH	1
21	931507	WELDT - 8020 SPROCKET AND HUB	1
22	931508	SPLINE SHAFT END BEARING HOUSING	1
23	931513	AUGER SHAFT BEARING HOUSING	1
24	931514	WELDT - 8020 SPROCKET AND SPLINE HUB	
25	931515L	PLATE - HEAVY WASHER	
26	931516	SPLINE SHAFT INNER BEARING HOUSING	
27	931799	WELDT - COVER REINFORCEMENT	
28	931812	CHAINBOX DRIVE CHAIN	1
29	960177	KEY 0.250" SQ	
30	967164	DRIVE-IN GREASE ZERK	1
31	968601	5/16" WING NUT	6

CHAINBOX AND TUBE - 16" MODELS



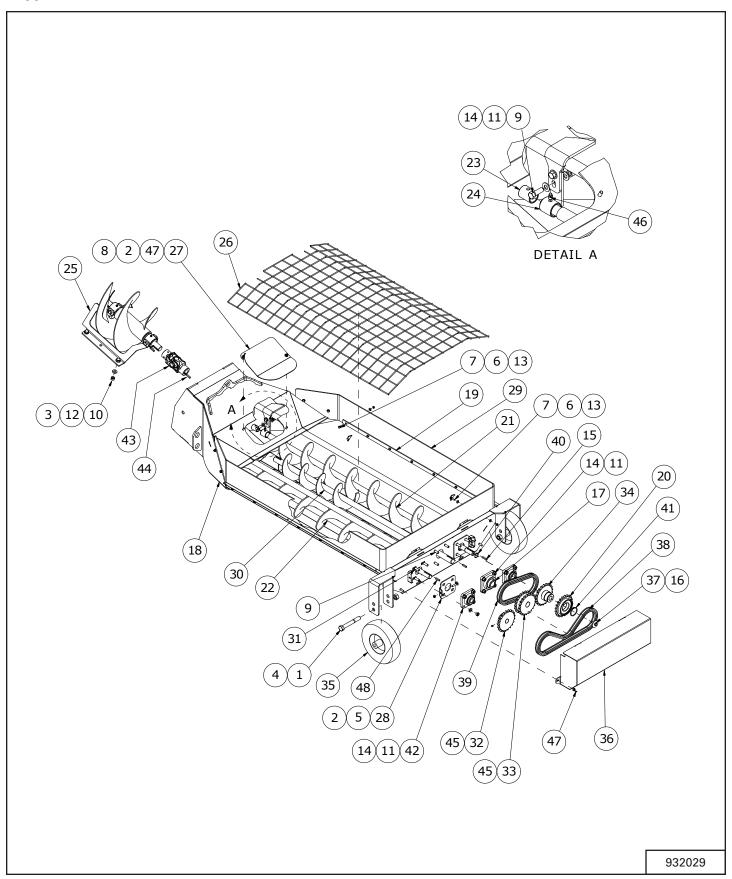
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	812363	3/8" LOCK NUT (PL)	
2	812364	1/2" LOCK NUT (PL)	
3	81593	3/8" LOCK WASHER (PL)	1
4	81597	7/16" X 1" HEX BOLT (PL)	5
5	81598	7/16" X 1 1/4" HEX BOLT (PL)	2
6	81599	7/16" X 1 1/2" HEX BOLT (PL)	8
7	81614	7/16" HEX NUT (PL)	4
8	84039	WASHER - 3/8" SAE FLAT (PL)	4
9	84041	7/16" SAE FLAT WASHER (PL)	15
10	84048	1/2" SAE FLAT WASHER (PL)	1
11	86273	7/16" LOCK NUT (PL)	11
12	907388	SILAPRENE (300mLTUBE)	60ml
13	916342	GREASE- NLGI GRADE 00	2L
14	930950	TIGHTENER SPROCKET SPACER	1
15	930952	BRKT-TIGHTENER Z BRACKET	1
16	930953	SPLINED SHAFT	1
17	930969L	PLATE - UPPER WASHER CB	1
18	931428	1/2 X 2.5" CARRIAGE BOLT GR.5 (YZ PL)	1
19	931431	1/2" X 1" UNF HEX BOLT GR.8 (YZ PL)	1
20	931505	IDLER SPROCKET 80 CHAIN 12TEETH	1
21	931513	AUGER SHAFT BEARING HOUSING	
22	931514	WELDT - 8020 SPROCKET AND SPLINE HUB	
23	931515L	PLATE - HEAVY WASHER	
24	931516	SPLINE SHAFT INNER BEARING HOUSING	1
25	931799	WELDT - COVER REINFORCEMENT	1
26	932061	3/8" X 1" UNF HEX BOLT GR.8 (YZ PL)	1
27	932627	FLANGE & BEARING W/ LOCK COLLAR	1
28	932784	ASSY - RETRACTOR	1
29	932937L	PLATE - CHAIN BOX DOOR	1
30	933071	WELDT - 8022 SPROCKET & HUB	1
31	933072	WELDT - CHAIN BOX	1
32	933077	CHAIN BOX DRIVE CHAIN	1
33	960704	SPROCKET KEY 3/8"SQ X 1 1/2"LG	
34	967164	DRIVE-IN GREASE ZERK	
35	968601	5/16" WING NUT	
36	81532	1/4" X 2 1/4" HEX BOLT GR5 (PL)	
37	81544	1/4" HEX NUT (PL)	
38	931810	THREADED CHAINTIGHTENER	
39	931813	RETRACTOR RACK CHAIN	
40	932780	WELDT - RETRACTOR	
41	932783	WELDT - MAIN SCREW	

HOPPER - 13" MODELS



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	812114	3/4" X 5 1/2" HEX BOLT (PL)	
2	812362	5/16" LOCK NUT (PL)	
3	812364	1/2" LOCK NUT (PL)	3
4	812365	3/4" LOCK NUT (PL)	2
5	812591	BOLT CARR 0.313 NC X 1.50 GR5PL	2
6	812624	1/4" FLAT WASHER PL	30
7	81527	1/4" X 1" HEX BOLT (PL)	22
8	81546	5/16" FLAT WASHER (PL)	1
9	81598	7/16" X 1 1/4" HEX BOLT (PL)	8
10	81620	1/2" X 1 1/4" HEX BOLT PL	4
11	84041	7/16" SAE FLAT WASHER (PL)	20
12	84048	1/2" SAE FLAT WASHER (PL)	8
13	84498	1/4" LOCK NUT (PL)	22
14	86273	7/16" LOCK NUT (PL)	16
15	900930	1/4" X 1/4" X 1-1/2" KEY	1
16	930969L	PLATE - UPPER WASHER CB	1
17	931508	SPLINE SHAFT END BEARING HOUSING	1
18	931783	WELDT - HOPPER	1
19	931877L	PLATE - SKIRT RETAINER	2
20	931891	ASSY - 21TOOTH IDLER	
21	932011	WELDT - RIGHT FEED SCREW	
22	932012	WELDT - LEFT FEED SCREW	
23	932015	FEED SCREW BUSHING	
24	932017	WELDT - FEED SCREW BUSHING HANGER	2
25	932018	ASSY -TRANSFER SCREW	1
26	932022	GUARD - HOPPER MESH	1
27	932023	BRKT -TRANSITION INSPECTION COVER	1
28	932024	BRKT - INNER CARRIAGE PLATE	2
29	932028	HOPPER SKIRT	1
30	932033	WELDT - HOPPER JACK SHAFT	1
31	932040	7/16" X 1 1/2" CARRIAGE BOLT GR5 (YZ PL)	8
32	932041	21TOOTH #60 SPROCKET AND HUB	1
33	932042	DOUBLE 21TOOTH #60 DRIVE	
34	932043	WELDT - RH FEED SCREW DRIVE AND IDLER	
35	932052	HANDTRUCKTIRE & WHEEL ASSEMBLY ZIGZAG	2
36	932057	WELDT - HOPPER CHAIN GUARD	
37	932061	3/8" X 1" UNF HEX BOLT GR.8 (YZ PL)	
38	932068	HOPPER LEFT FLIGHT DRIVE CHAIN	
39	932069	HOPPER RIGHT FLIGHT DRIVE CHAIN	
40	932207	EXTERNAL RETAINING RING	
41	932208	EXTERNAL RETAINING RING	1

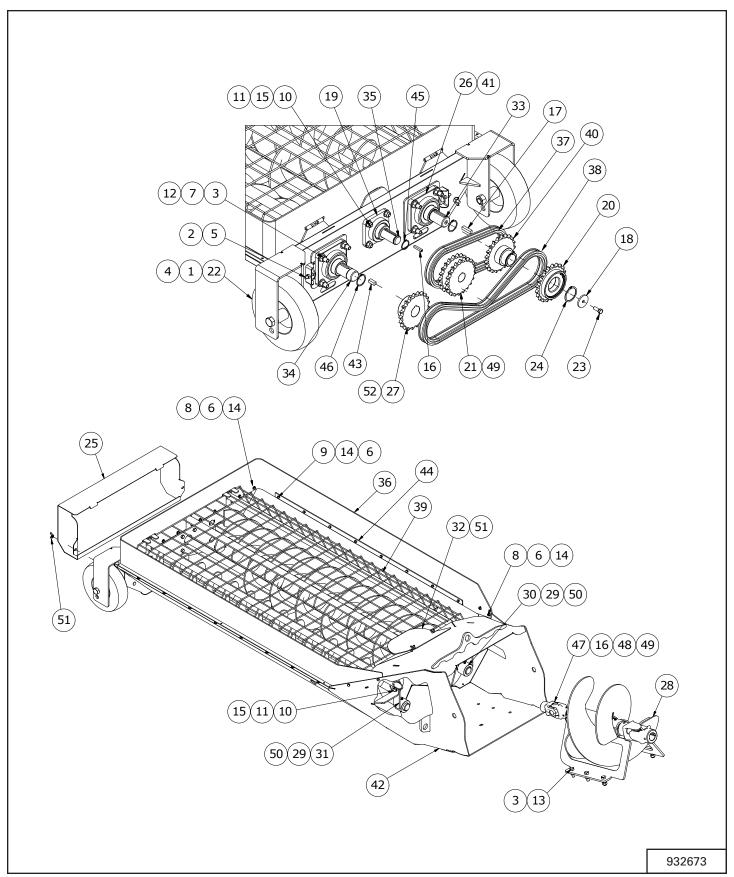
Hopper - 13" Models Cont.





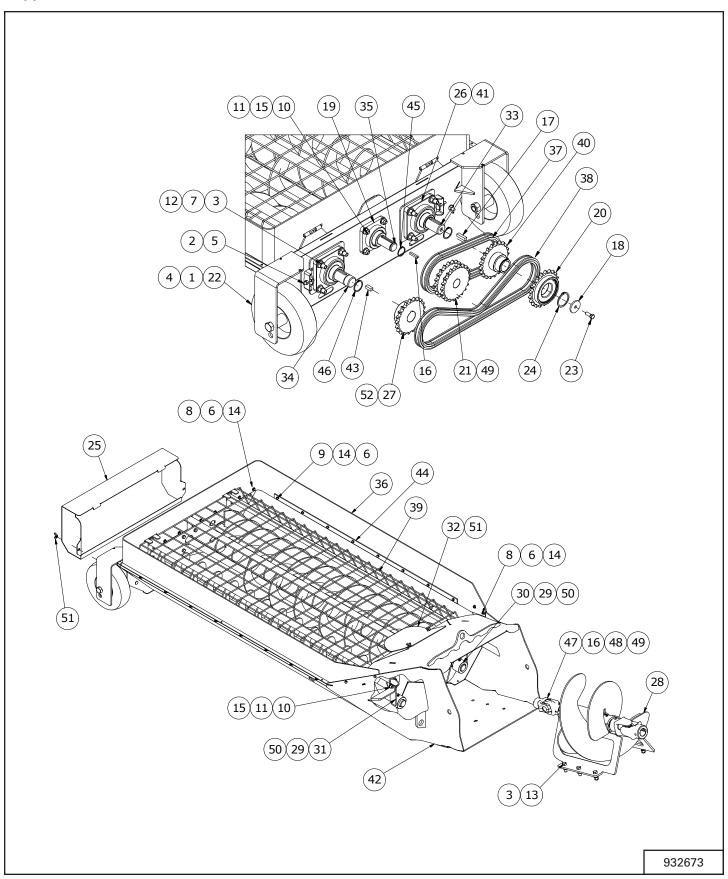
ITEM	PART NUMBER	DESCRIPTION	QTY.
42	932214	FLANGE & BEARING W/ LOCK COLLAR	2
43	933153	U-JOINT 1-1/4" X 1-1/4"	1
44	960177	KEY 0.250" SQ	3
45	967141	5/16" X 1/4" SOCKET SET SCREW (BR)	
46	967164	DRIVE-IN GREASE ZERK	2
47	968601	5/16" WING NUT	3
48	SZ01125118	KEY SQ 1/4" X 1.19"	1

HOPPER - 16" MODELS



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	812114	3/4" X 5 1/2" HEX BOLT (PL)	
2	812362	5/16" LOCK NUT (PL)	
3	812364	1/2" LOCK NUT (PL)	
4	812365	3/4" LOCK NUT (PL)	2
5	812591	BOLT CARR 0.313 NC X 1.50 GR5PL	2
6	812624	1/4" FLAT WASHER PL	28
7	813059	1/2 X 2" CARRIAGE BOLT GR.5 (PL)	8
8	81525	1/4" X 3/4" HEX BOLT (PL)	12
9	81527	1/4" X 1" HEX BOLT (PL)	16
10	81598	7/16" X 1 1/4" HEX BOLT (PL)	8
11	84041	7/16" SAE FLAT WASHER (PL)	8
12	84048	1/2" SAE FLAT WASHER (PL)	8
13	84277	1/2" X 1 1/2" HEX BOLT (PL)	6
14	84498	1/4" LOCK NUT (PL)	28
15	86273	7/16" LOCK NUT (PL)	8
16	900930	1/4" X 1/4" X 1-1/2" KEY	2
17	905769	KEY - INT AUGTO HOPPER 3/8" X 3/8" X 1 1/2"	1
18	930969L	PLATE - UPPER WASHER CB	1
19	931508	SPLINE SHAFT END BEARING HOUSING	1
20	931891	ASSY - 21TOOTH IDLER	1
21	932042	DOUBLE 21 TOOTH #60 DRIVE	
22	932052	HANDTRUCKTIRE & WHEEL ASSEMBLY ZIGZAG	
23	932061	3/8" X 1" UNF HEX BOLT GR.8 (YZ PL)	
24	932208	EXTERNAL RETAINING RING	1
25	932623	WELDT - HOPPER CHAIN GUARD	1
26	932627	FLANGE & BEARING W/ LOCK COLLAR	2
27	932628	21 TOOTH #60 SPROCKET AND HUB	1
28	932629	ASSY -TRANSFER SCREW	1
29	932634	BRONZE BUSHING	2
30	932646	WELDT - LEFT BUSHING HOLDER	1
31	932647	WELDT - RIGHT BUSHING HOLDER	1
32	932648	BRKT -TRANSITION INSPECTION COVER	1
33	932649	WELDT - RIGHT FEED SCREW	
34	932650	WELDT - LEFT FEED SCREW	
35	932657	WELDT - JACK SHAFT FEED SCREW	
36	932660	HOPPER SKIRT	
37	932661	HOPPER RIGHT FLIGHT DRIVE CHAIN	
38	932662	HOPPER LEFT FLIGHT DRIVE CHAIN	1
39	932664	GUARD - HOPPER MESH	1
40	932665	WELDT - RH FEED SCREW DRIVE AND IDLER	1

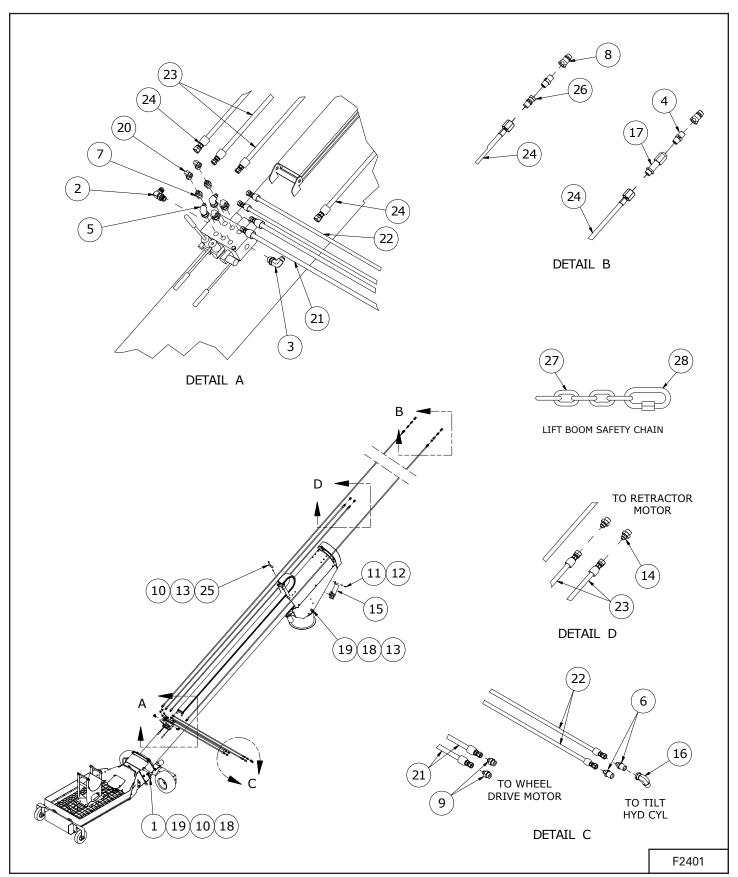
Hopper - 16" Models Cont.





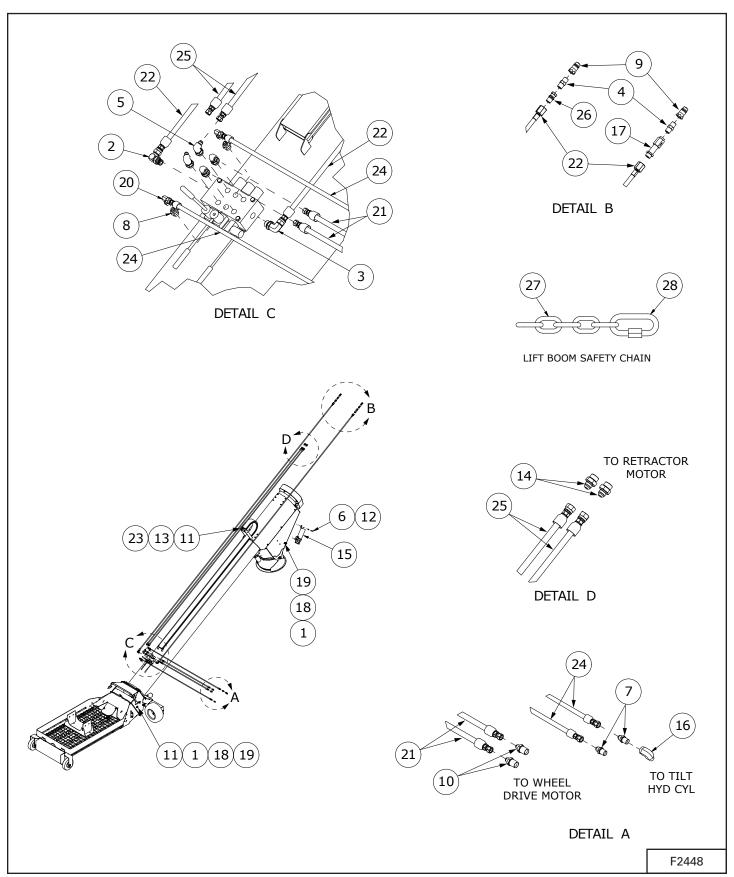
ITEM	PART NUMBER	DESCRIPTION	QTY.
41	932666	BRKT - INNER CARRIAGE PLATE	2
42	932671	WELDT - 16"TELESWING HOPPER	1
43	932672	0.375 X 0.375 X 1.00 KEY	1
44	932676L	PLATE - SKIRT RETAINER	2
45	932678	EXTERNAL RETAINING RING	1
46	932680	EXTERNAL RETAINING RING	
47	932681	U-JOINT	
48	960704	SPROCKET KEY 3/8"SQ X 1 1/2"LG	
49	967141	5/16" X 1/4" SOCKET SET SCREW (BR)	6
50	967164	DRIVE-IN GREASE ZERK	2
51	968601	5/16" WING NUT	4
52	985639	03/8" X 1/2" SOCKET SET SCREW (BR)	2

HYDRAULICS - 13" MODELS



ITEM	PART NUMBER	DESCRIPTION	
1	810640	5/16" X 2" HEX BOLT (PL)	
2	811414	ELBOW 90 3/4 MORB X 3/4 MJIC	1
3	811416	ELBOW-10 MORB X -8 MJIC, 90 DEG	1
4	811469	ADAPTOR STRAIGHT -8 MNPT X -8 MNPT	2
5	811916	ELBOW-8MORB X -6MJIC 90DEG	4
6	812084	ADAPTER-6MJIC X -6MPT	2
7	812107	ADAPTOR STR 3/4MORB X 9/16MJI	2
8	812208	NIPPLE 1/2" BODY 1/2"-14 NPTF QUICK CONNECT	2
9	812320	ADAPTER-8 MPT X -6 MJIC	2
10	812362	5/16" LOCK NUT (PL)	2
11	81546	5/16" FLAT WASHER (PL)	3
12	81549	5/16" X 3/4" HEX BOLT (PL)	3
13	81925	HEX BOLT 5/16" X 1 3/4" (PL)	2
14	886897	ADAPTOR STR 7/8MORB X 3/4MJIC S	2
15	909277	MANUAL HOLDER 3 1/2" X 12"	
16	913969	ELBOW-6 MPT X -6 FPT 90	
17	914276	VALVE-CHECK -8 MPT X -8 FPT	1
18	915817	CLAMP-TWIN 0.63	2
19	915821	COVER-TWIN CLAMP	2
20	919398	ELBOW-6 FJIC X - 6 MJIC, 90°	2
21	932238	HOSE-6 X -6 JIC X -6JIC	2
22	932239	HOSE-4 X -6JIC X -6JIC	2
23	932240	HOSE-6 X -6JIC X -8JIC	2
24	932241	HOSE-6 X -8NPT X -8JIC	2
25	932318	BRKT - HYD HOSE CLAMP	1
26	966307	ADAPTOR 1/2MNPT X 1/2FNPT0520R	1
27	934727	1/4" CHAIN (PL)	1
28	960167	QUICK LINK (PL)	1

HYDRAULICS - 16" MODELS



ITEM	PART NUMBER	DESCRIPTION	
1	810640	5/16" X 2" HEX BOLT (PL)	
2	811414	ELBOW 90 3/4 MORB X 3/4 MJIC	1
3	811416	ELBOW-10 MORB X -8 MJIC, 90 DEG	1
4	811469	ADAPTOR STRAIGHT -8 MNPT X -8 MNPT	2
5	811916	ELBOW-8MORB X -6MJIC 90DEG	4
6	812026	5/16" X 1" HEX BOLT (PL)	3
7	812084	ADAPTER-6MJIC X -6MPT	2
8	812107	ADAPTOR STR 3/4MORB X 9/16MJI	2
9	812208	NIPPLE 1/2" BODY 1/2"-14 NPTF QUICK CONNECT	2
10	812320	ADAPTER-8 MPT X -6 MJIC	2
11	812362	5/16" LOCK NUT (PL)	2
12	81546	5/16" FLAT WASHER (PL)	3
13	81925	HEX BOLT 5/16" X 1 3/4" (PL)	1
14	886897	ADAPTOR STR 7/8MORB X 3/4MJIC S	2
15	909277	MANUAL HOLDER 3 1/2" X 12"	
16	913969	ELBOW-6 MPT X -6 FPT 90	
17	914276	VALVE-CHECK -8 MPT X -8 FPT	1
18	915817	CLAMP-TWIN 0.63	2
19	915821	COVER-TWIN CLAMP	2
20	919398	ELBOW-6 FJIC X - 6 MJIC, 90°	2
21	932238	HOSE-6 X -6 JIC X -6JIC	2
22	932241	HOSE-6 X -8NPT X -8JIC	2
23	932318	BRKT - HYD HOSE CLAMP	1
24	933248	HOSE-4 X -6JIC X -6JIC	2
25	933249	HOSE-6 X -6JIC X -8JIC	2
26	966307	ADAPTOR 1/2MNPT X 1/2FNPT0520R	1
27	934727	1/4" CHAIN (PL)	1
28	960167	QUICK LINK (PL)	1



SPECIFICATIONS

SPECIFICATIONS	89
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Imperial Chart	92



SPECIFICATIONS

Model	13″ Teleswing		
Tube Length	17', 9-1/2' stroke		
Tube Diameter	13"		
Tube Material	12 gauge, 13" diameter		
PTO	540 RPM, shear pin		
Sprocket Main Drive	#80 chain		
Hopper Drive	#60 chain		
Capacity	Approx. 11,000 bu/hr		
Hopper	52" x 45" x 9-1/4"		
Model	16″ Teleswing		
*INFORMATION UNAVAILABLE			

SHIPPING KIT AND BUNDLE NUMBERS

The following is a list of Kit Numbers for this product and the Bundle Numbers, Descriptions, and Quantities for each Kit.

Qty.	Bundle	Description			
13" Tel Auger	13" Teleswing, Telescopic Retracting Swing Auger				
1	F2401	Base unit, hydraulic winch not included.			
16" Teleswing, Telescopic Retracting Swing Auger					
*INFORMATION UNAVAILABLE					

Specifications - Teleswing

HYDRAULIC CONNECTION SPECIFICATIONS

O-Ring Fitting (Straight Thread)

Lubricate the O-ring before installing the fitting. Loosen the jam nut and install the fitting. Tighten the jam nut until the washer is tight against the surface.

O-Ring Face Seal Connection

O-ring Face Seal Tightening Torque			
Tubeline O.D.	Thread Size	N•m (ft-lb)	
1/4"	9/16" - 18	13 (18)	
3/8"	11/16" - 16	22 (30)	
1/2"	13/16" - 16	40 (54)	
5/8"	1" - 14	60 (81)	
3/4"	1-3/16" - 12	84 (114)	
7/8"	1-3/16" - 12	98 (133)	
1"	1-7/16" - 12	118 (160)	
1-1/4"	1-11/16" - 12	154 (209)	
1-1/2"	2" - 12	163 (221)	

When the fitting is tightened, you can feel when the fitting is tight to eliminate leakage caused by under or over torqued fittings. Use petroleum jelly to hold the O-ring in position until the fittings are assembled.

Flare Fitting

Flare Fitting Tightening Torque				
Tubeline O.D.	Thread Size	N • m (ft-lb)		
1/4"	7/16" - 20	13 (18)		
5/16"	1/2" - 20	17 (23)		
3/8"	9/16" - 18	22 (30)		
1/2"	3/4" - 16	40 (54) 60 (81) 84 (114)		
5/8"	7/8" - 14 1-1/16" - 12			
3/4"				
7/8"	1-3/16" - 12	98 (133)		
1"	1-5/16" - 12	118 (160) 154 (209) 163 (221)		
1-1/4"	1-5/8" - 12			
1-1/2"	1-7/8" - 12			
2"	2-1/2" - 12	252 (342)		

Tighten until the nut makes contact with the seat. Use the chart [Figure 57] to find the correct tightness needed.

Port Seal (O-Ring Boss) Fitting

Port Seal And O-ring Boss Tightening Torque					
Tubeline O.D.	Thread Size	N•m (ft-lb)			
1/4"	7/16" - 20	13 (18)			
3/8"	9/16" - 18	22 (30) 40 (54) 60 (81)			
1/2"	3/4" -1 6				
5/8"	7/8" - 14				
3/4"	1-1/16" - 12	84 (114)			
7/8"	1-3/16" - 12	98 (133)			
1"	1-5/16" - 12	118 (160)			
1-1/8"	1-7/16" - 12	154 (209)			
1-1/4"	1-5/8" - 12	163 (221)			

Note: Port seal and nut, washer and O-ring (O-ring Boss) fittings use the same tightening torque valve chart [Figure 58].

If a torque wrench cannot be used, use the following method.

Tighten the nut until it just makes metal to metal contact, you can feel the resistance.

Tighten the nut with a wrench no more than one hex flat maximum.

Do not over tighten the port seal fitting.

Note: If a torque wrench cannot be used, use the hex flat tightening method as an approximate guideline.

Note: Port seal fittings are not recommended in all applications. Use O-ring boss fittings in these applications.

Tubelines And Hoses

Replace any tubelines that are bent or flattened. They will restrict flow, which will slow hydraulic action and cause heat.

Replace hoses which show signs of wear, damage or weather cracked rubber.

Always use two wrenches when loosening and tightening hose or tubeline fittings.

HARDWARE TORQUE VALUES

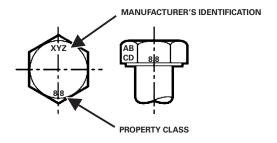
Metric Chart

NOTE: Do not use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.

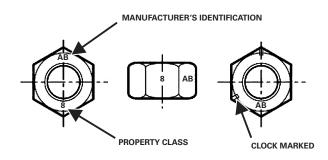
Use the following charts to determine the correct torque when checking, adjusting or replacing hardware. Torque values are listed in newton-meters (inch* or foot pounds) for normal assembly applications.

Naminal	Class 5.8		Class 8.8		Class 10.9		Lock nuts	
Nominal Size	Unplated	Plated W / ZnCr	Unplated	Plated W / ZnCr	Unplated	Plated W / ZnCr	CL.8 W/ CL. 8.8 Bolt	
M4	1.7 (15*)	2.2 (19*)	2.6 (23*)	3.4 (30*)	3.7 (33*)	4.8 (42*)	1.8 (16*)	
M6	5.8 (51*)	7.6 (67*)	8.9 (79*)	12 (102*)	13 (115*)	17 (150*)	6.3 (56*)	
M8	14 (124*)	18 (159*)	22 (195*)	28 (248*)	31 (274*)	40 (354*)	15 (133*)	
M10	28 (21)	36 (27)	43 (32)	56 (41)	61 (45)	79 (58)	30 (22)	
M12	49 (36)	63 (46)	75 (55)	97 (72)	107 (79)	138 (102)	53 (39)	
M16	121 (89)	158 (117)	186 (137)	240 (177)	266 (196)	344 (254)	131 (97)	
M20	237 (175)	307 (226)	375 (277)	485 (358)	519 (383)	671 (495)	265 (195)	
M24	M24 411 (303) 531 (392) 64		648 (478)	839 (619)	897 (662)	1160 (855)	458 (338)	
NOTE: Torque values shown with * are inch pounds.								

Identification of Hex Cap Screws and Carriage Bolts - Classes 5 and up



Identification of Hex Nuts and Lock Nuts - Classes 5 and up



HARDWARE TORQUE VALUES (CONT'D)

Imperial Chart

NOTE: Do not use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.

Use the following charts to determine the correct torque when checking, adjusting or replacing hardware. Torque values are listed in newton-meters (inch* or foot pounds) for normal assembly applications.

	SAE Grade 5		SAE Grade 8		LOCK NUTS				
Nominal Size	Unplated or Plated Silver	Plated W / ZnCr Gold"	Unplated or Plated Silver	Plated W / ZnCr Gold"	Unplated or Plated Silver	Plated W / ZnCr Gold"	Grade W / Gr. 5 Bolt	Grade W / Gr. 8 Bolt	
1/4	6.2 (55*)	8.1 (72*)	9.7 (86*)	12.6 (112*)	13.6 (121*)	17.7 (157*)	6.9 (61*)	9.8 (86*)	
5/16	13 (115*)	17 (149*)	20 (178*)	26 (229*)	28 (250*)	37 (324*)	14 (125*)	20 (176*)	
3/8	23 (17)	30 (22)	35 (26)	46 (34)	50 (37)	65 (48)	26 (19)	35 (26)	
7/16	37 (27)	47 (35)	57 (42)	73 (54)	80 (59)	104 (77)	41 (30)	57 (42)	
1/2	57 (42)	73 (54)	87 (64)	113 (83)	123 (91)	159 (117)	61 (45)	88 (64)	
9/16	81 (60)	104 (77)	125 (92)	163 (120)	176 (130)	229 (169)	88 (65)	125 (92)	
5/8	112 (83)	145 (107)	174 (128)	224 (165)	244 (180)	316 (233)	122 (90)	172 (127)	
3/4	198 (146)	256 (189)	306 (226)	397 (293)	432 (319)	560 (413)	217 (160)	306 (226)	
7/8	193 (142)	248 (183)	495 (365)	641 (473)	698 (515)	904 (667)	350 (258)	494 (364)	
1	289 (213)	373 (275)	742 (547)	960 (708)	1048 (773)	1356 (1000)	523 (386)	739 (545)	
	NOTE: Torque values shown with * are inch pounds.								

Identification of Hex Cap Screws and Carriage Bolts



SAF BOLT



SAF BOLTS



SAF BOLTS



SAE NUTS

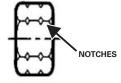


SAF NUTS



SAF NUTS

Identification of Hex Nuts and Lock Nuts



GRADE A: NO NOTCHES

GRADE B: ONE CIRCUMFERENTIAL NOTCHES

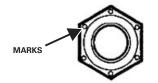


GRADE IDENTIFICATION

GRADE A: NO MARK

GRADE B: LETTER B

GRADE C: LETTER C



GRADE IDENTIFICATION

GRADE A: NO MARKS

GRADE B: THREE MARKS

GRADE C: SIX MARKS

MARKS NEED NOT BE LOCATED AT CORNERS

WARRANTY

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FARM KING BASE LIMITED WARRANTY

Farm King provides this warranty only to original retail purchasers of its products. Farm King warrants to such purchasers that all Farm King 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:

- One (1) year for Teleswing models purchased separately.
- Two (2) years for Teleswing models included with a 2018 model Backsaver Auger purchase.

This limited warranty applies only to those parts and components manufactured by Farm King. Parts and components manufactured by others are subject to their manufacturer's warranties, if any.

Farm King 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 Farm King within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Parts must be returned through the selling representative and the buyer must prepay transportation charges.

Farm King 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 Farm King. 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.

Repair Parts Limited Warranty

Farm King warrants genuine Farm King replacement parts purchased after the expiration of the Farm King 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. Farm King 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 Farm King 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 the Farm King factory 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 Farm King; 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 Farm King.

Authorized Dealer And Labor Costs

Repairs eligible for labor under this limited warranty must be made by Farm King or an authorized Farm King dealer. Farm King 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 Farm King 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. Farm King will not approve or pay invoices sent for repairs that Farm King has not previously approved. Warranty service does not extend the original term of this limited warranty. Payment of labor costs will only be considered on repairs made to manufactured parts and components that have been found defective during a period of one (1) year following delivery to the original retail purchaser.

Warranty Requirements

To be covered by warranty, each new product must be registered with Farm King 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, Farm King 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.

EXCLUSIVE EFFECT OF WARRANTY AND LIMITATION OF LIABILITY

TO THE EXTENT PERMITTED BY LAW, FARM KING 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.

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Farm King 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 Farm King to the purchaser, and Farm King 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 Farm King's ability to obtain materials or manufacturer 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.

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