



OPERATOR AND PARTS MANUAL

Quick-Tach Grapple

Model C3000 & C3001

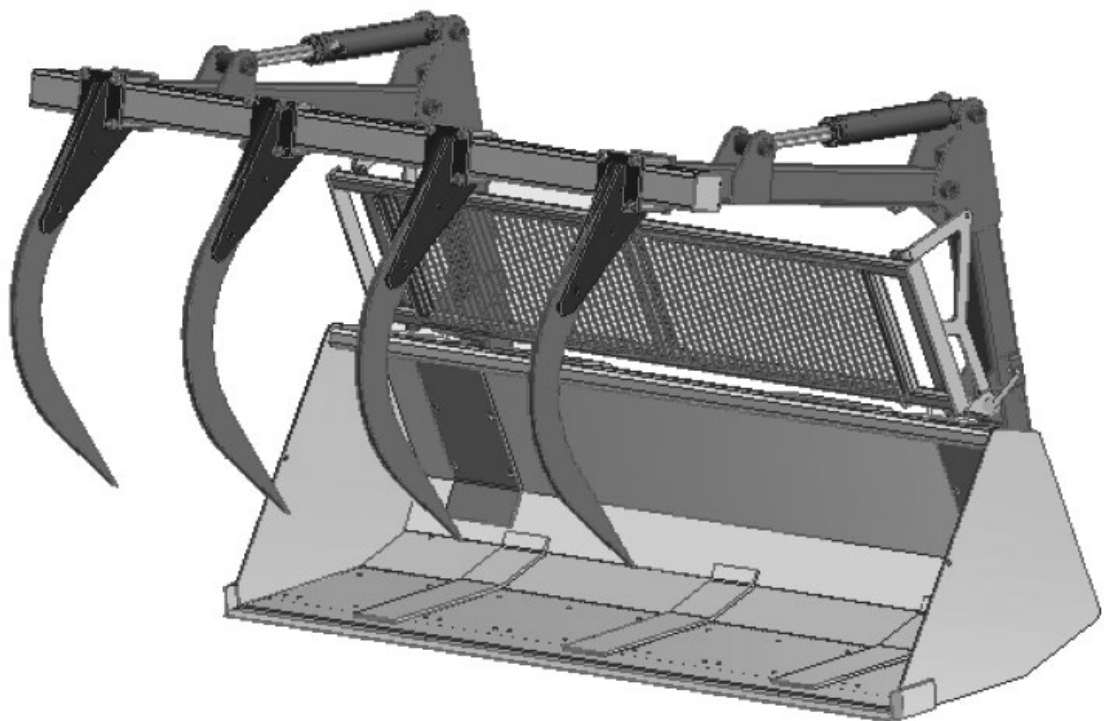


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Introduction

Allied builds rugged attachments for all your commercial needs. Whether you need a skid steer or tractor configuration, Allied makes all large jobs easier. Products range from commercial grade snow blades to hay handling forks and grapples.

Attachments are coated with a three-part paint process to ensure many years of maintenance free service. Allied loader attachments can be fixated to any loader or skid steer model currently on the market. Simplicity and ease of use have been built into Allied for many years. Join in the tradition of quality Allied products and have them working for your operation today.

Keep this manual handy for frequent reference. All new operators or owners must review the manual before using the equipment and at least annually thereafter. Contact your Allied Dealer if you need assistance, information, or additional copies of the manual. Visit our website at www.buhlerindustries.com for a complete list of dealers in your area.

The directions left, right, front and rear, as mentioned throughout this manual, are as seen facing in the direction of travel of the implement.

Safety

Safety Instructions

Remember, YOU are the key to safety. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program. Be certain that everyone operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

The alert symbol is used throughout this manual. It indicates attention is required and identifies hazards. Follow the recommended precautions.



The safety alert symbol means...

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



CAUTION

The caution symbol indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



WARNING

The Warning Symbol indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



DANGER

The Danger Symbol indicates an imminently hazardous situation that, if not avoided will result in death or serious injury. This signal word is to be limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

General Safety Instructions

- Have a first-aid kit available for use and know how to use it.
- Have a fire extinguisher available, stored in a highly visible location, and know how to use it.
- 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
- Read and understand the Operator's Manual and all safety signs before operating, servicing, adjusting, repairing, or unplugging the equipment.
- Do not attempt any unauthorized modifications to your Allied product as this could affect function or safety, and could affect the life of the equipment.
- Inspect and clean the working area before operating.
- Keep hands, feet, clothing, and hair away from moving parts.
- Ensure bystanders are clear of the area before operating.
- Improper use of the loader and tractor can cause serious injury or death.

Start-Up Safety

- Do not let inexperienced operators or children run this equipment.
- Place all tractor and machine controls in neutral before starting.

Operation Safety

- Do not permit riders.
- Do not wear loose fitting clothing during operation.
- Operate the loader while seated in the tractor seat only.
- Never leave the tractor unattended while the attachment is raised. Always lower the attachment to ground and shut the tractor off before leaving the tractor seat.
- Never work beneath a raised loader unless it is securely supported. The control lever can be moved or a hydraulic leak could cause the loader to drop resulting in serious injury or death. Refer to the Lift Lock Instructions Decal for proper use of the lift locks.
- Prior to use, check to ensure the attachment is properly locked to the quick-tach. Verify from tractor seat by lowering the attachment to ground and retracting the lift cylinders.
- Never operate the loader with frayed or damaged hoses or leaking fittings. A burst could cause the loader to drop suddenly and result in serious injury or death and cause damage to the loader or tractor.
- Keep tractor on solid ground. Loose fill, rocks and holes can be dangerous for loader operation and movement.
- A pivoting front axle acts like a three-wheeled tractor until the stops hit the axle.
- Space rear tires as recommended by the tractor manufacturer. Maximize width for high lift applications and uneven terrain.
- Add rear ballast as required to ensure 25% of gross vehicle weight is transferred to the rear axle. Loader, attachment and payload must be included as weight.

- Do not raise attachment to extreme heights while tractor is on an incline. Be alert for terrain changes and adjust accordingly. Keep attachment at low travel height, no more than one foot, as long as possible.

Transport Safety

- Review Transport Safety instructions in tractor manual before moving.
- Check with local authorities regarding transport on public roads. Obey all applicable laws and regulations.
- Make sure the SMV (Slow Moving Vehicle) emblem 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.
- Never have the equipment in operation during transport.
- Always travel at a safe speed.
- Allow for attachment and loader length when turning.
- The tractor must be equipped with an approved Roll Over Protection Structure (ROPS) and safety belts.

Service and Maintenance Safety

- Stop engine, set brake, remove ignition key, and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.
- Support the equipment with blocks or safety stands before working beneath it.
- 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.
- Use only tools, jacks, and hoists of sufficient capacity for the job.
- Replace and secure all shields removed during servicing before operating.
- Use heavy leather gloves to handle sharp objects.
- Check hydraulics regularly for leaks. Use cardboard to look for leaks, and use hand and eye protection.
- Relieve pressure on hydraulic system before repairing or adjusting.

Storage Safety

- Store the unit in an area away from human activity.
- Do not permit children to play on or around the stored machine.
- Support the frame on stands and blocks to provide a secure base.

Safety Signs

- Keep all safety signs clean and legible and replace any that are damaged or missing.
- When original parts are replaced, any safety signs affixed to those parts should be replaced as well. Replacement safety signs are available from your local dealer.

Installation

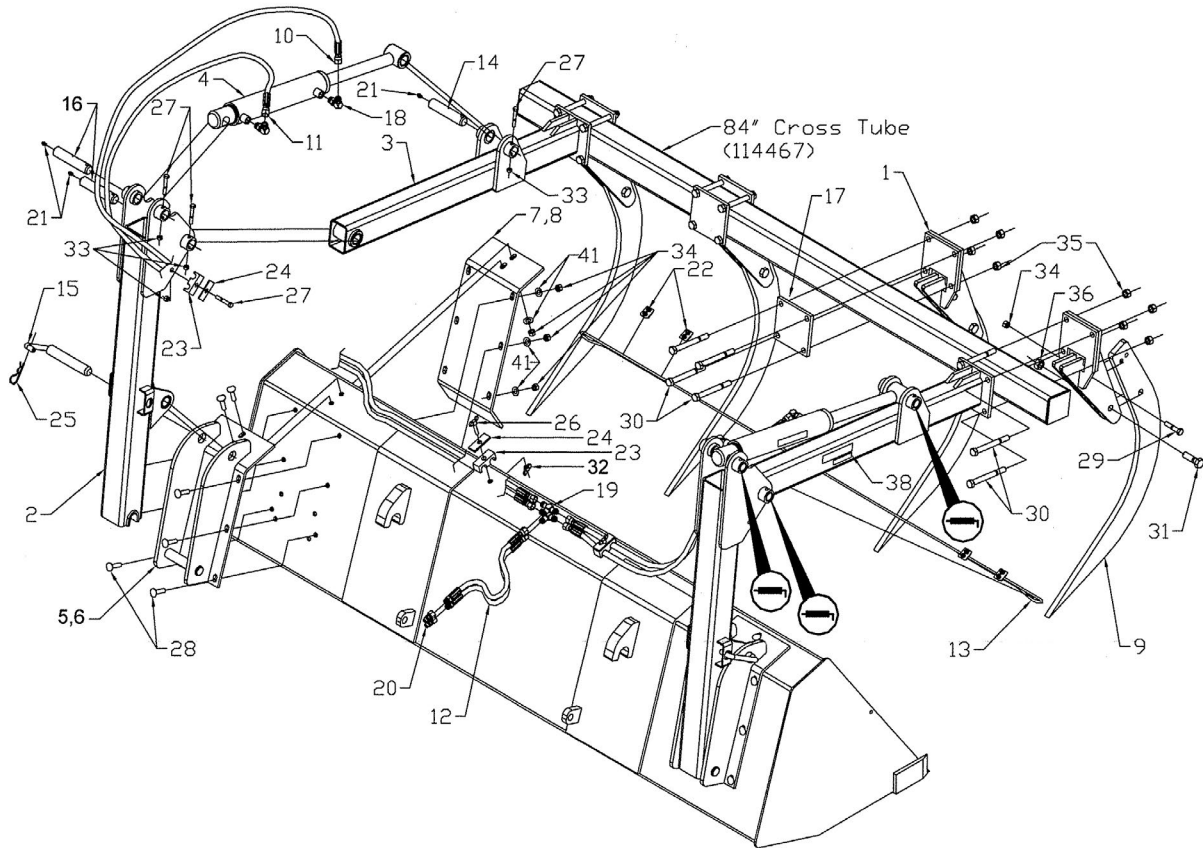
- To install safety signs, ensure the installation area is clean and dry. Decide on the exact position before you remove the backing paper. Remove the smallest portion of the split backing paper and align over the specified area. Carefully press in place.
- Slowly peel back the remaining paper and smooth the remaining portion in place. Small air pockets can be pierced with a pin and smoothed out.
- Replace safety signs immediately should they become damaged, torn or illegible. Obtain replacements from your authorized dealer.

Mounting

Please read and understand the following instructions before mounting.

1. Refer to the recommended mounting dimensions for mounting hole locations on various bucket sizes. Drill sixteen 0.56" diameter holes as indicated. Drill two 0.44" diameter holes into the top of the bucket for the hose clamps. Proper position of the hose clamps will eliminate interference between the hoses and mechanical linkages during loader operation. Specific grapple buckets equipped with pre-punched holes are also available. See price pages or contact local dealer.
2. Install the mount brackets (item 5, 6), and inside support plates (item 7, 8) onto the bucket with carriage bolts (item 28) and steel lock nuts (item 34). Torque bolts to 75 ft-lbs.
3. Install uprights (item 2) into mount brackets with quick-tach pins (item 15) and hairpin clips (item 25). Install grease fittings (item 21) into pins (item 14, 16). Assemble grapple arms (item 3) into the uprights using pins (item 16), bolts (item 27) and nylon lock nuts (item 33).
4. Support grapple arms and install hydraulic cylinders using pins (item 14, 16), bolts (item 27) and nylon lock nuts (item 33).
5. Assemble elbows (item 18), 84" hose (item 11) and 96" hose (item 10), tees (item 19), 96" hoses (item 12) and hydraulic tips (item 20). Clamp hoses to the side of the uprights and the top of the bucket using clamps (item 23), plates (item 24), bolts (item 26, 27) and nuts (item 32). Ty-raps (item 40) have been provided to group hoses. Ensure sufficient clearance during operation.
6. Using bolts (item 30) and steel lock nuts (item 35), assemble the outer tooth mount weldments (item 1) and the cross tube (114467) to the grapple arms as shown. Torque bolts to 150 ft-lbs.
7. Attach remaining tooth mount weldments (item 1) to cross tube (114467) using bolts (item 30), bolt plates (item 17) and steel lock nuts (item 35). Position on cross tube as required.
8. Attach teeth (item 9) to the tooth mount weldments (item 1) using bolts (item 29, 31) and steel lock nuts (item 34, 36). Avoid interferences with bucket tines (if equipped). Torque bolts to 150 ft-lbs.
9. Attach the cable (item 13) to the grapple arms using cable clamps (item 22).
10. Apply grease to all pivots as indicated by grease symbols.
11. Completely raise and lower the loader and fully dump and rollback the bucket while the grapple remains in an opened and closed position. Ensure that the loader and grapple operate properly. Verify that all hoses are routed and tied appropriately to avoid rubbing or pinching during operation.

Parts



NOTE:

1. Item 40, ty-raps, are to be used to hold hoses together.
2. Item 37 and 39, dust caps, are to be attached to the male hydraulic tip (item 20).
3. Standard bucket assembly shown.
4. Grease where specified, typical both sides.

Part No.	Part No.	Description
C3000	C3001	Grapple Kits
X3003	X3009	Mount bracket Kit
X3225	X3225	C3000/C3001 Parts
X3226	X3226	Pin Bag
X3227	X3227	Hardware Bag
X3007	X3007	Decal Bag
114467	114467	CrossTube 84.00"

Item	Part No.	Description	X3225	X3003	X3226	X3227	X3007	X3009
1	117013	Tooth Mount Heavy	4					
2	25124	Upright Weldment C3000/3001	2					
3	25370	Arm Weldment C3000/3001	2					
4	25129M	Cylinder Assembly 2.5 x 11.25	2					
5	116112	Mount Bracket Weldment C3000		2				
6	116107	Mount Bracket Weldment C3001						2
7	116130	Inside Support Plate C3000		2				
8	116108	Inside Support Plate C3001						2
9	116109	Grapple Tooth C3000/3001	4					
10	116138	Hose 3/8 x 96" 3/4 Swfjic x 3/4 Swfjic	2					
11	811431	Hose 3/8 x 84" 3/4 Swfjic x 3/4 Swfjic	2					
12	811525	Hose 3/8 x 96" 3/4 Morb x 3/4 Swfjic	2					
13	114880	Grapple Cable 0.25 x 108 LG	1					
14	116137	Pin 1.25 Dia x 6.00 Lg			2			
15	116101	Quick-Tach Pin Weldment			2			
16	114252	Pin 1.25 Dia x 6.75 Lg			4			
17	116724	Bolt Plate Heavy			4			
18	811414	Elbow 90 3/4 Morb x 3/4 Mjic				4		
19	812069	Tee Run 3/4 Mjic x 3/4 Mjic				2		
20	812841	Male Tip 1/2 Body 3/4 Forb				2		
21	84583	Grease Fitting 1/8 Npt Str				6		
22	961658	Cable Clamp 1/4				4		
23	113843	Hose Clamp 3/8 Urethane				4		
24	113923	Hose Clamp Plate				4		
25	12779	Hairpin Clip #9 West Wire				2		
26	813471	Wing Screw 0.375nc x 2.00 gr5 pl				2		
27	81581	Bolt Hex 0.375nc x 2.50 gr5 pl				8		
28	813059	Bolt Carr 0.500nc x 2.00 gr5 pl				16		
29	811796	Bolt Hex 0.500nc x 2.50 gr5 pl				4		
30	812088	Bolt Hex 0.625nc x 7.00 gr5 pl				16		
31	84346	Bolt Hex 0.750nc x 2.50 gr5 pl				4		
32	84217	Nut Wing 0.375nc gr2 pl				2		
33	81344	Nut Lock (Nylon) 0.375nc grB pl				8		
34	812364	Nut Lock (Steel) 0.500nc grB pl				20		
35	812482	Nut Lock (Steel) 0.625nc grB pl				16		
36	812365	Nut Lock (Steel) 0.750nc grB pl				4		
37	813302	Dust Cap 0.5 Yellow				1		
38	815034	Allied by Farm King Decal					2	
39	813306	Dust Cap 0.5 Orange				1		
40	812075	Ty-Rap 13-5/8" Lg				4		
41	84048	Washer Flat Sae 0.500Bspl				16		

Grapple Hydraulic Kits

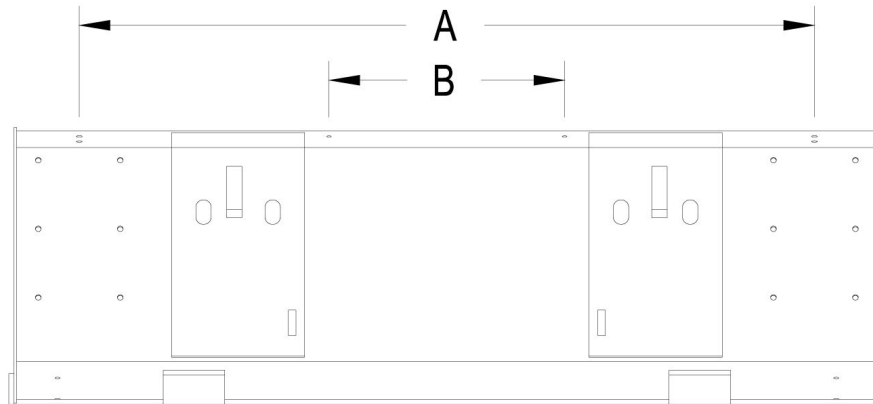
Part No.	Description
C9936	495-895 REG/HSL
C1964	595-795 TSL
C1965	895 TSL
C2246	2595/2596/2795
C2672	2895
C2673	S2895

NOTE:

Grapple hydraulic kits are sold separately. Kits include hydraulic tubes, which are mounted along existing loader hydraulic tubes for grapple operation, hydraulic couplers and hardware.

Recommended Mounting Dimensions

Standard Buckets



Bucket Width	84"	96"	102"
A	71.75	75.75	75.75
B	23.00	23.00	23.00

NOTE:

- The above table lists the recommended hole spacing for all Allied loaders from 495/2495 to 895/2895 (including Reg/S/HSL/TSL) with standard buckets. If required the grapple may be located to suit specific applications. Verify all clearances between the grapple and the loader.
- Use the mount bracket weldments (item 5,6) to mark the holes for drilling.
- Grapple buckets (B459584, B479584, B479596, B489596, B4895102, B4259584, B4279596 and B42895102) and all large capacity buckets come equipped with pre-punched holes.
- Holes for hose clamps should be drilled even with either of the mounting bracket holes on top of the bucket.

Possible Attachment Interference (S2895 and 2895TSL)

Regular loader linkage setup allows for maximum rollback.

TSL loader linkage setup provides reduced rollback.

Large attachments (such as the C2000 Grapple) may contact the S2895 or 2895TSL pivot plate. This can occur if the loader is fully rolled back. This interference is avoided in factory assembly. The loader linkage can be reversed to increase attachment rollback if large attachments are not used. See following description below to reverse links.

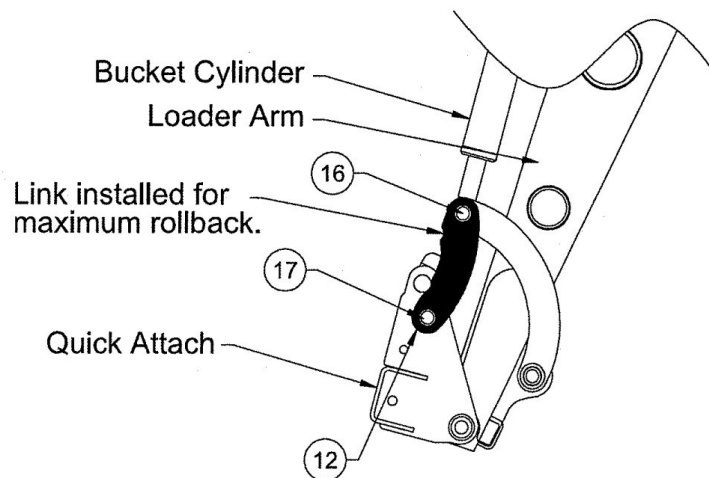
Before reversing the linkage remove attachments and engage the hydraulic loader lock (refer to the loader manual for hydraulic loader lock instructions).

Remove 1.25 x 7.25 pin item 16 connecting the linkages items 11, and 12.

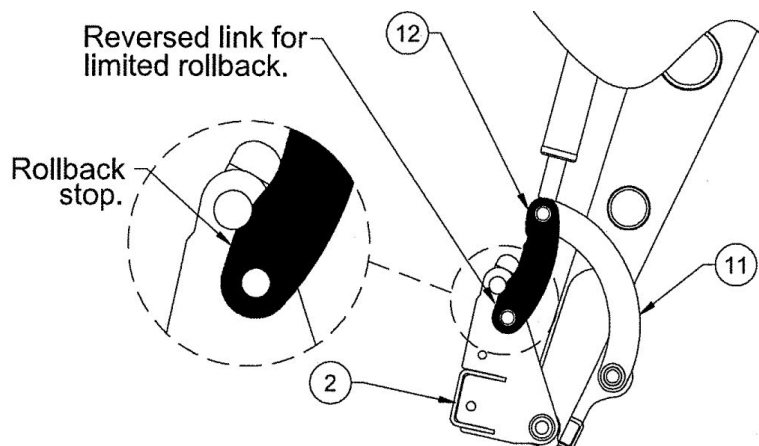
Remove 1.25 x 6.25 pin connecting the linkage item 12 to the quick attach item 2.

Reverse the (4) linkages, and reinstall pins and quick attach.

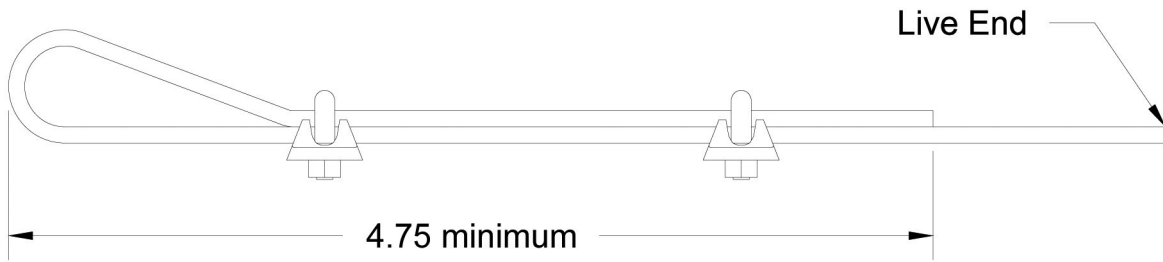
Regular Loader Linkage Setup



TSL Loader Linkage Setup



Clamp and Cable Information



NOTE:

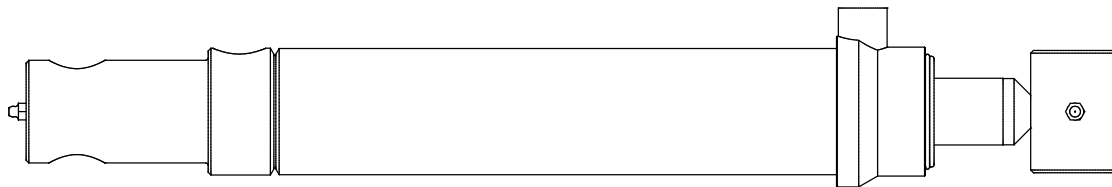
1. Nominal breaking strength of 1/4" 7 x 19 Galvanized Aircraft Cable: 7000 lbs.
2. Do not reinstall used clamps.
3. Re-tighten nuts periodically after cable has been in use. Torque to 15 ft-lbs.
4. Do not lubricate threads.
5. Never use clips to make direct end-to-end joints of rope.
6. Saddle of clamps must always be installed at long (live) end of cable.

Hydraulic Cylinder Assembly

Cylinder Assembly No. 25129M	
2.50"	Diameter
11.25"	Length of Stroke
22.50"	Retracted Length
33.75"	Extended Length
818004	Seal Kit No.
1.50"	Shaft Diameter

NOTE:

1. Cylinders may vary in appearance.
2. All cylinder seals are contained in corresponding seal kit.



CAUTION

Maximum pressure - 3000 psi

Grapple Orifice Kit Instructions

Hydraulic Safety

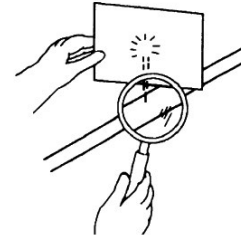
Escaping fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before repairing, adjusting, or disconnecting lines, be sure to relieve all pressure.

Before applying pressure to the system, be sure all connections are tight and the lines, pipes, and hoses are not damaged.

Wear proper hand and eye protection when searching for leaks. Use a piece of wood or cardboard instead of hand to check for leaks.

Maintain all components in good working order.

If injured by escaping fluid, see a doctor at once. Serious infection or toxic reaction can develop if proper medical treatment is not administered immediately.

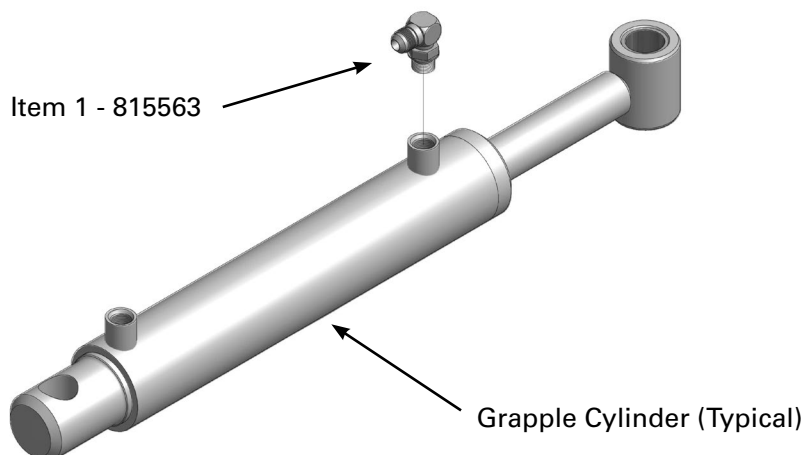


Installation

Fitting (815563) is provided in the event that grapple opening/closing speed is excessive with chosen hydraulic setup (e.g. high flow, on/off valve systems) Install fitting into the ROD-SIDE port of BOTH cylinders. Failure to install the fitting in both cylinders may result in binding or twisting of the grapple assembly.

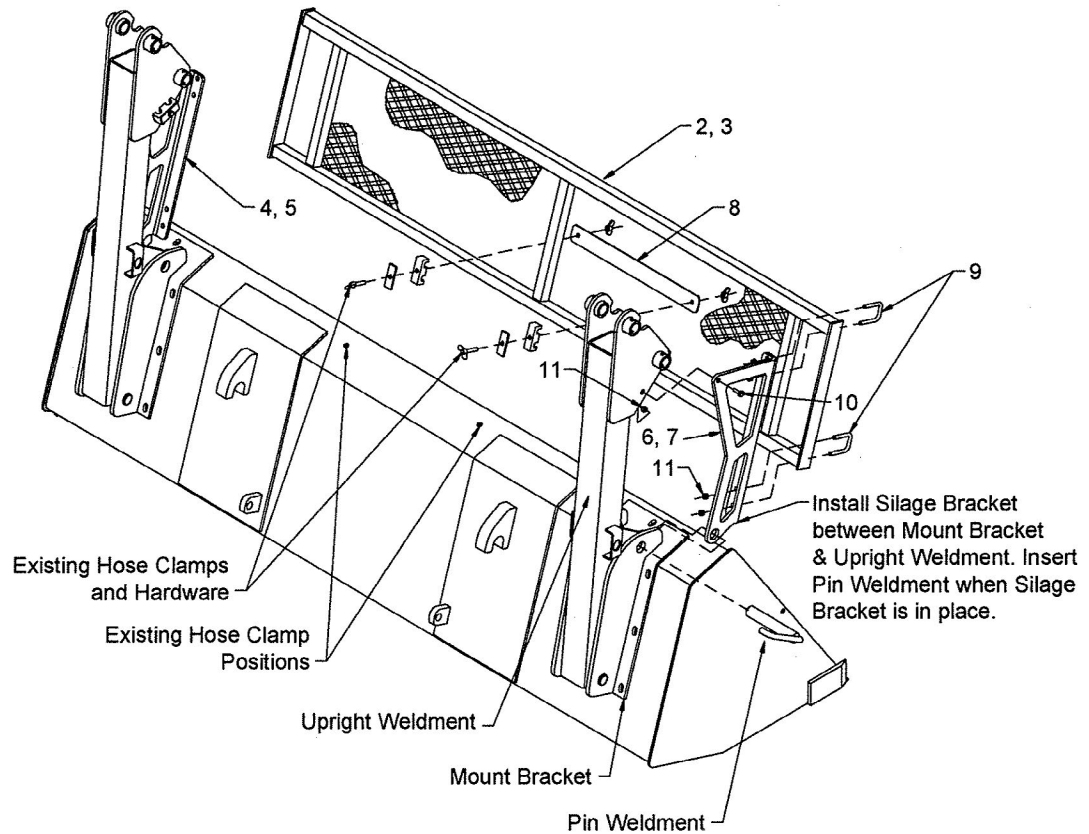
X3206

Item	Part No.	Description	Qty
1	815563	Elbow 90 3/4 MORB x 3/4 MJIC x .150	2

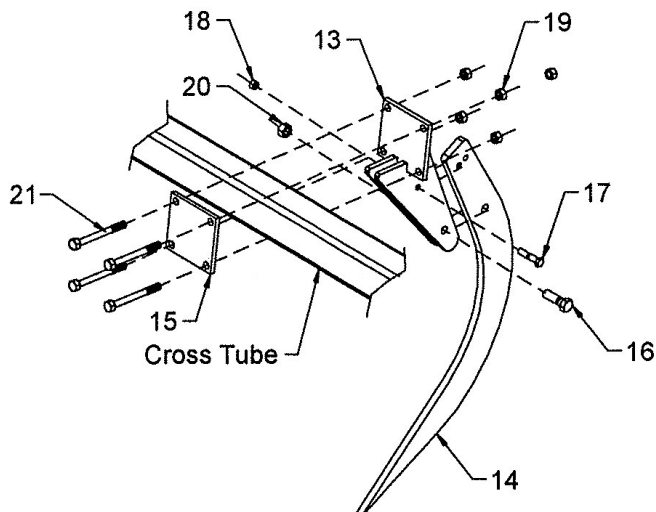


Grapple Options

Silage Backsplash X2900/X2901



Tine Kit X3006



Silage Backsplash Parts X2900/X2901

Item	Part No.	Description	X2900	X2901	X2946
1	X2946	Bag of Hardware X2900/X2901	1	1	
2	116147	Silage Screen Weldment X2900	1		
3	116159	Silage Screen Weldment X2901		1	
4	116152	Bracket Left X2900	1		
5	116157	Bracket Left X2901		1	
6	116153	Bracket Right X2900	1		
7	116158	Bracket Right X2901		1	
8	116171	Tie Strap X2900/X2901	1	1	
9	116131	U Bolt 0.38 x 1.50 x 2.50			4
10	811792	Bolt Hex 0.375nc x 1.50 gr5 pl			2
11	81344	Nut Lock (Nylon) 0.375nc grB pl			10

Tine Kit Parts X3224

Item	Part No.	Description	X3224	X3230
12	X3230	Bag of Hardware X3224	1	
13	116739	Tooth Mount Weldment	1	
14	116109	Grapple Tooth C3000/3001	1	
15	116724	Bolt Plate		1
16	84346	Bolt Hex 0.750nc x 2.50 gr5 pl		1
17	811796	Bolt Hex 0.500nc x 2.50 gr5 pl		1
18	812364	Nut Lock (Steel) 0.500nc gbb pl		1
19	812482	Nut Lock (Steel) 0.625nc grb pl		4
20	812365	Nut Lock (Steel) 0.750nc grb pl		1
21	812076	Bolt Hex 0.625nc x 6.50 gr5 pl		4

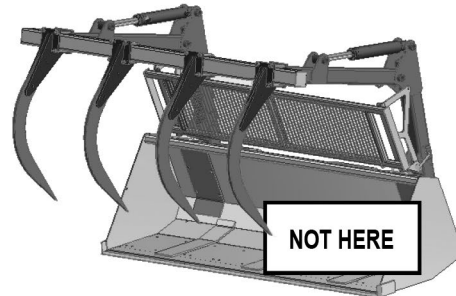
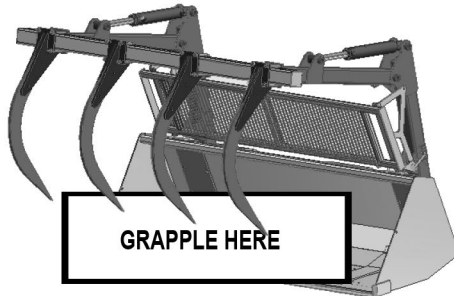
Mounting Instructions: Silage Backsplash X2900/X2901

Please read and understand the following instructions before mounting.

1. Install silage screen brackets (item 4, 5, 6, 7) between the grapple upright and mount brackets as shown using bolts (item 10), nylon lock nuts (item 11) and existing grapple pin weldments. Finger tighten hardware.
2. Install silage screen weldment (item 2, 3) using u-bolts (item 9) and nylon lock nuts (item 11). Torque all hardware to 75 ft-lbs.
3. Install existing hose clamps and hardware with tie strap (item 8) onto silage screen as shown. Ensure enough slack in hoses for full range of grapple motion.



WARNING



DAMAGE WARNING

To prevent damage to grapple:

Make sure load is centered in bucket before grappling. Load must be distributed evenly across each tine on grapple.

Grappling a load with the edge tine may result in damage to the grapple.

Installing Tine Brace Kit X3145 will aid in even distribution of load across all tines.

Tine Brace Kit X3145

Part No.	Description	Qty.
116659	Tine Brace Channel	1
116660	U Bolt 0.38 X 1.0 X 4.62	4
81344	Nut Lock (Nylon) 0.375nc Grbpl	8
81570	Washer Flat Std 0.375 Hs Pl	8

Mounting Instructions: Tine Brace Kit X3145

Please read and understand the following instructions before mounting.

1. Install tine brace channel across the front tines of the grapple, secure tine brace channel to each tine with one U bolt, two washers, and two lock nuts.
2. U bolts can be installed through different holes on tine brace channel depending on spacing of grapple tines.

Operation

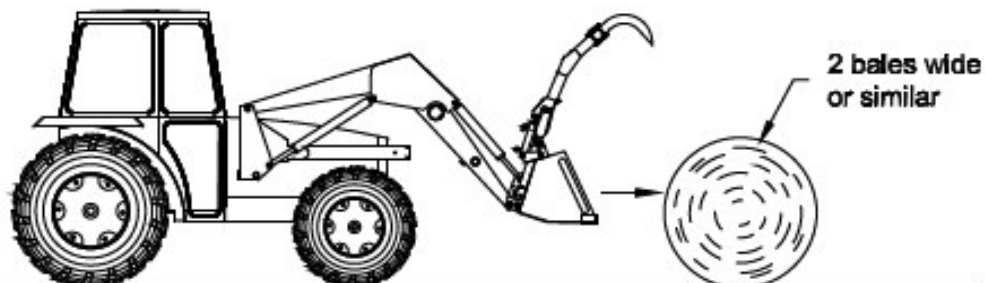


Figure 1

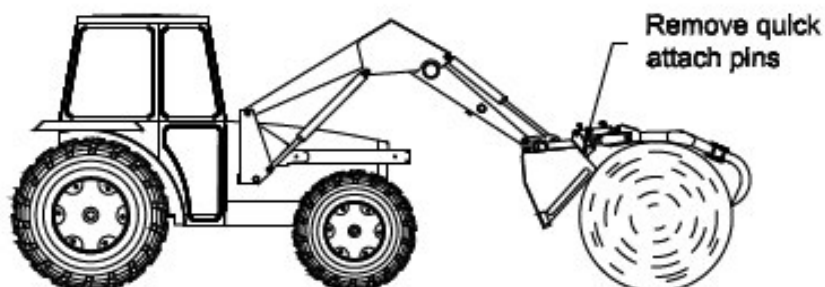


Figure 2

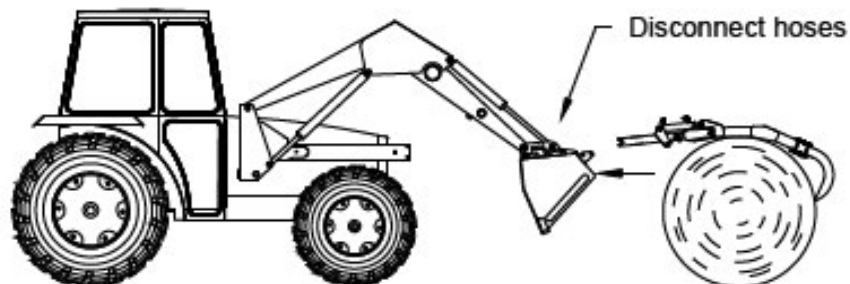


Figure 3

NOTE:

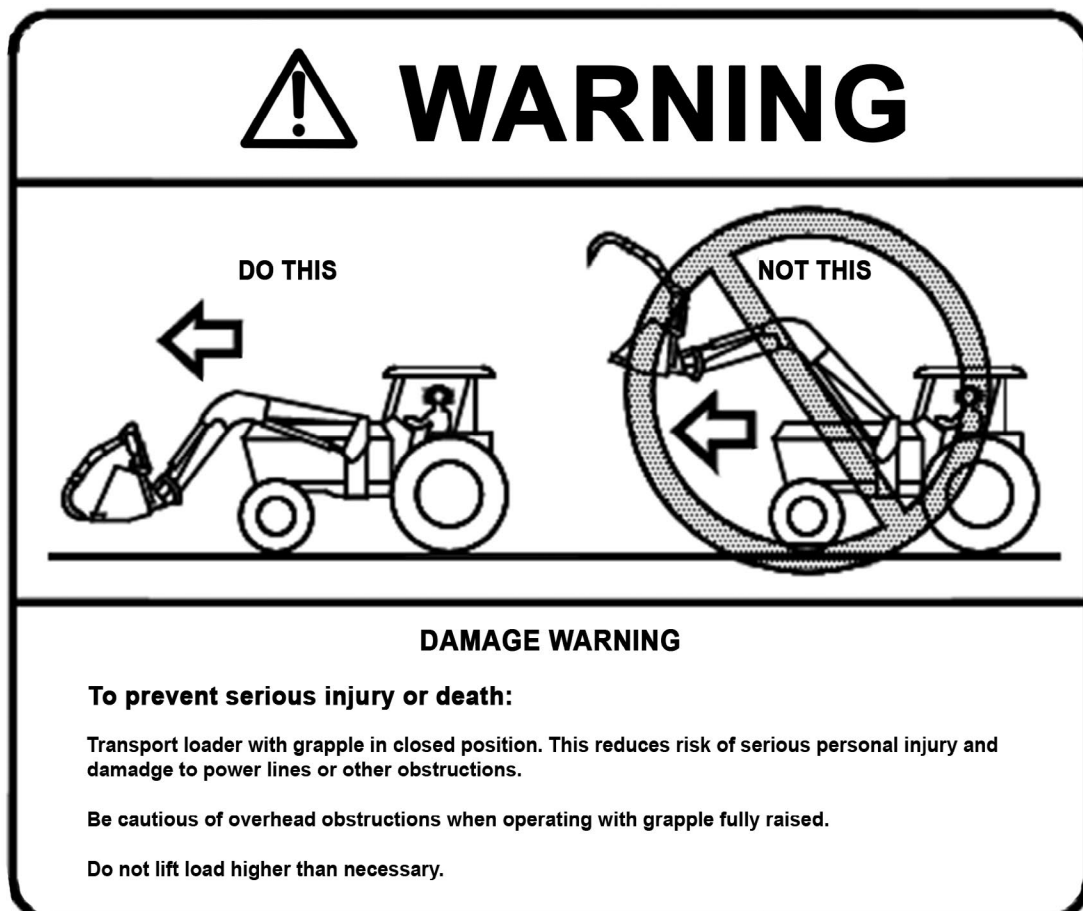
1. With grapple open, approach two bales placed end to end (Figure 1).
2. Position grapple over bales as shown (Figure 2).
3. Remove both quick attach pins.
4. Back out slowly. Grapple will slide out of mount bracket weldments (Figure 3.)
5. Disconnect hoses.
6. To reattach, reverse process

Troubleshooting

Problem	Cause	Remedy
Loader slow and/or will not dump	Quick couplers leaking	Check connections and compatibility or replace
	Hydraulic oil too heavy	Change or replace filter
	Oil filter plugged	Clean or replace filter
	Hydraulic pump worn	Repair or replace pump
	Oil line restricted or leaking	Check all hoses and tubes for leaks, damage or restrictions. Replace damaged or restricted hoses or tube lines.
	Control valve does not shift properly	Inspect, clean, repair or replace valve
	Air in hydraulic system	Cycle lift cylinders and bucket cylinders several times to free system of air
	Cylinder leaks internally	Replace seals
	Faulty valve	Repair or replace valve
Loader chatters or vibrates when raising and lowering	Air leak in pump inlet line.	Check, tighten or replace inlet line
	Air in hydraulic system	Cycle lift cylinders and bucket cylinders.
	Oil level too low	Add oil as required
	Worn bushings and/or pins	Replace bushings and/or pins
Pump noisy	Inlet line restricted or leaking.	Check for air leaks, restrictions or collapsed hose. Tighten or replace hose. Clean filter if necessary.
	Oil level too low	Add oil as required
	Pump worn or damaged	Repair or replace pump
Insufficient lift capacity	Improper hydraulic pump operation	Repair or replace pump
	Load is greater than boom lift capacity	Check loader specifications
	Internal boom cylinder leakage	Replace any worn parts and install a seal repair kit
	Improper hydraulic valve operation	Repair or replace valve
Slow leak down	Worn control valve	Have authorized dealer replace seals
	Worn cylinder piston seals	Have authorized dealer replace seals
Excessive wear on bottom of bucket and wear pads	Float position not used while operating loader	Use float position provided on valve.
Hydraulic cylinders. Inoperative	Hose from control valve improperly connected	Refer to plumbing diagrams.
Pump operating continually on closed center tractor hydraulic system	Tractor control valve relief stuck open	See your tractor manual for proper adjustment or loader dealer for loader valve. (3000 PSI is maximum pressure relief setting recommended.)
	Hydraulic control valve set too low.	Adjust valve in accordance with manual.
Loaders lift and bucket tilt controls do not work according to decal	Hoses improperly connected.	Replace relief valve with closed center plug and plug the power beyond adapter on valve.
Valve noise and/or hot	Open center control valve on closed center tractor	Replace relief valve with closed center plug and plug the power beyond adapter on valve.
Tractor loads/pump squeals.	Closed center control valve on open center tractor	Install open center plug on optional valve. Replace closed center plug with relief and install short plug in place of power beyond adapter

Important Precautions

The following pictorials indicate important precautions to be used during the operation of the loader and grapple.



⚠ DANGER



ELECTROCUTION HAZARD

To prevent serious injury or death:

Stay away from power lines and cables.
Electrocution can occur with or without direct contact.

⚠ WARNING



FALLING HAZARD

To prevent serious injury or death:

Do not lift or carry persons on any part of the loader.
Do not allow any persons to ride on or work from any part of the loader.

⚠ WARNING



CRUSHING HAZARD

To prevent serious injury or death:

Do not handle round bales unless loader is equipped with an attachment designed for this purpose.
Do not handle loose loads that are not secured.
Do not lift load higher than necessary.

⚠ WARNING



HIGH PRESSURE FLUID

To prevent serious injury or death:

Relieve pressure on system before adjusting or disconnecting.
Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
Keep all components in good repair.
If hydraulic fluid penetrates skin, obtain medical treatment IMMEDIATELY.

⚠ WARNING



ROLL - OVER HAZARD

To prevent serious injury or death:

Move and turn tractor at low speed.
Carry load no higher than necessary to clear the ground when transporting.
Add wheel ballast or rear weight for stability.
Move wheels to widest possible settings to increase stability.
It is recommended the tractor be equipped with a rollover protective structure (ROPS).

⚠ WARNING



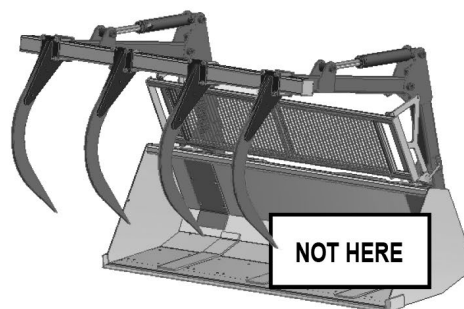
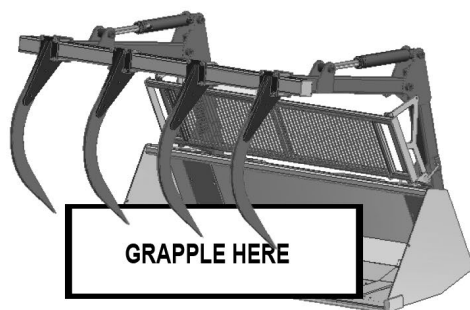
CRUSHING HAZARD

To prevent serious injury or death:

Do not allow bystanders in loader work area.
Lower loader to the ground before leaving operator's position.
Do not walk or work under raised loader.
Refer to operator's manual for servicing.



WARNING



DAMAGE WARNING

To prevent damage to grapple:

Make sure load is centered in bucket before grappling. Load must be distributed evenly across each tine on grapple.

Grappling a load with the edge tine may result in damage to the grapple.

Installing Tine Brace Kit X3145 will aid in even distribution of load across all tines.

Allied by 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. Defective parts will receive an extra 10% discount to assist with freight or other incidental costs.

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.

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