OPERATOR'S MANUAL

WL SERIES

WL-21 / WL-27 / WL-42



Specialists in Quality and Time Saving Farm Equipment

ONLINE ATTACHMENT CATALOG at: www.loaders.com

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A product of Westendorf Manufacturing Co., Inc.

WESTENDORF MFG. CO., INC. ● ONAWA, IA 51040 ● 712.423.2762 ● www.loaders.com

SECTION 1: INTRODUCTION

Welcome To The Westendorf Family

Your new Westendorf equipment is the highest quality and time saving machinery available. We urge you to exercise sound judgement in the operation and maintenance of this equipment to assure long, trouble-free use and personal safety. It is important to read this manual thoroughly and understand it completely before assembly or operation of this equipment.

This manual should be considered a permanent part of your equipment and be transferred to the new owner if the equipment is sold. It consists of instructions and guides for operating your new equipment. It should be your first, not last resort when dealing with questions.

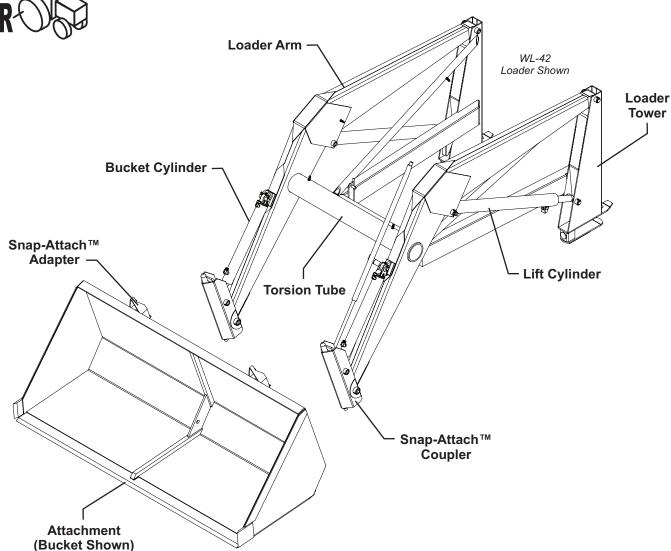
Thank you for your purchase of our product. If there is anything further we can do to assure complete satisfaction, contact your Westendorf dealer. If you still need help, please call on us. We will be glad to assist you in any way we can.

Thank You; Westendorf Manufacturing

Terminology



Basic terminology that is used throughout this manual has been identified in the illustration below. Components and instructions in this manual are identified as "left" or "right". This is determined as "in the operators seat facing in the normal direction of travel". See figure.

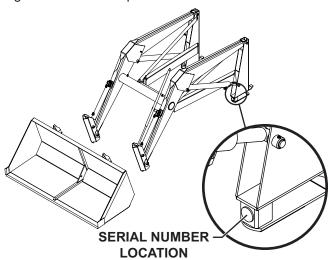


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SECTION 1: WARRANTY & REGISTRATION

Figure illustrates the product serial number location.



The following information is needed for service and parts.

Product Serial Numb	oer:		
Model Number:			
Customer Name:			
Address:			
City:	State:	Zip:	
Date Of Purchase: _			
Tractor Make And Ma	odel.		

Dealer Preparation Checklist

Before delivering machine, the dealer must complete the following checklist and sign, along with the customer where noted below. After completion, copy this page and fax to Westendorf Manufacturing Co. Inc. at 712-423-1460.

Do not remove this page from manual.

- ☐ Machine is properly assembled.
- ☐ All safety decals in proper location and legible.
- ☐ All hardware tightened to specification. See torque chart in Service and Maintenance section.
- ☐ Customer has correct mounting kit for loader and tractor.
- ☐ Customer has appropriate attachments for loader operations (buckets for loose materials, bale spear for round bales; forks for palletized material, etc.).
- ☐ Machine operates properly.
- ☐ Operator's manual has been delivered to the owner/ operator and that person has been instructed on the safe and proper use of the loader.

Customer's Signature	 	

Dealer's Signature

AWARNING

CRUSHING HAZARD.

The tractor must be equipped with a ROPS or ROPS Cab, and seat belt be used for all loader operations.

Limited Warranty

Westendorf Manufacturing Co., Inc. warrants to the original purchaser only, all new Westendorf equipment to be free from defects in material and workmanship under normal use and service. Westendorf Manufacturing Co., Inc. will repair or replace any defective part manufactured by Westendorf Manufacturing Co., Inc. and returned to Westendorf Manufacturing Co., Inc. at Onawa, Iowa (shipping costs prepaid), within one year from the original date of purchase of the equipment covered by this agreement. Other parts furnished by dealers or other manufacturers for resale or assembly are subject to the warranty of the other manufacturers only. These warranties are valid only if the equipment has been used and maintained in accordance with normal equipment maintenance and service.

The limited warranty of the above paragraph applies to cylinder packings for a period of ninety (90) days.

Westendorf Manufacturing Co., Inc. does not warrant in any matter, including fitness for a particular purpose, parts or equipment purchased from other manufacturers. Although the Westendorf loader is designed to minimize tractor strain, the manufacturer will assume no responsibility for damage to tractors or any other equipment.

The warranties given herein are given in lieu of all other warranties, expressed or implied, including without limitation, the warranty of merchantability and the warranty of suitability for a particular purpose. It is agreed that the buyer's sole remedy shall be limited to repair or replacement of defective parts as described above for any breach of warranties. It is expressly agreed that Westendorf Manufacturing Co., Inc. assumes no liability for any consequential damages arising out of a breach of this contract or any warranties arising therefrom.

Westendorf Manufacturing Co., Inc. will not be liable for commitments or agreements or warranties made by any of its employees, agents or dealers not in accordance with the above warranty.

No warranties, expressed or implied, of fitness or merchantability are made or arise with respect to used equipment.

Basic terminology is used throughout this manual. Figure on preceding page identifies the different parts of the loader and their terminology.

SECTION 2: SAFETY

Recognize Safety Information

This is the safety alert symbol. This symbol identifies important safety messages on your machinery and in this manual. When you see this symbol, be alert to the possibility of personal injury.

Carefully follow the recommended precautions and safe operating practices.

Safety Alert Symbol And Signal Words

This manual provides instructions for the operation and care of your Westendorf product. The instructions in this manual must be followed to ensure the safety of persons and satisfactory life of the implement. Safety precautions to protect against injury or property damage must be followed at all times.

You must read, understand and follow the instructions given by the tractor manufacturer, as well as the instructions in this manual.

The safety information in this manual is denoted by the safety alert symbol: 🗥

The level of risk is indicated by the following signal words:

A DANGER

White letters on RED

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

AWARNING Black letters on ORANGE

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

A CAUTION

Black letters on YELLOW

CAUTION indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.



White letters on **BLUE**

NOTICE indicates a property damage message.

Safety Instructions

Carefully read all safety messages in this manual and on equipment safety signs. Keep safety signs in good condition and replace missing or damaged safety signs. New equipment components and repair parts must include the current safety decal. Safety decals are available at no charge from your Westendorf dealer.

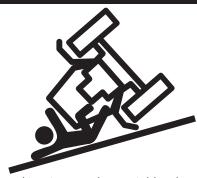
Learn how to properly operate equipment. **NEVER** allow anyone to operate equipment without proper instruction, while fatigued or under the influence of alcohol, prescription or non-prescription medication.

Keep equipment in proper working condition. Unauthorized modifications to the equipment may impair the function, or more importantly, have an effect on your safety.

Know the regulations and laws that apply to you and your industry. This manual is not to replace any of them. Additional information may be found on the world wide web at: www.asae.org or www.osha.gov.

If you do not understand any part of this manual, contact your Westendorf dealer.

Tractor Requirements



Narrow front end tractors can be unstable when equipped with a front end loader and can rollover.

Use extreme caution when operating a narrow front end tractor equipped with a loader.

Operate on level ground only, keep loads low and avoid sharp turns.

Mount loader on a tractor equipped with wide front end and a ROPS or ROPS Cab.

Maintenance And Inspection

Inspect for worn or loose parts regularly. Lubricate according to specifications in this manual. Never alter or modify any part of the mounting brackets, loader or attachments. Doing so can result in an unsafe condition and may void the warranty.

SECTION 2: SAFETY

Prepare For Emergencies

Be prepared in case of an emergency.

Keep a fire extinguisher and first aid kit handy.

Keep emergency phone numbers close to your phone.



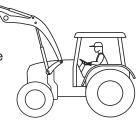
Know your address so emergency services can locate you if an emergency arises.

Do Not Allow Riders

NEVER lift or carry anyone with loader, bucket or attachments.

NEVER use the loader or attachment as a work platform.

NEVER allow passengers on the tractor. Be sure that people, livestock and pets are clear of machinery while operating.



High Lift Loaders

High lift loader require tractors with a long wheel base. The rear wheels need to be set out all the way or preferably dual rear wheels and adequate ballast. (See ballast calculations in your loader's operator manual.)

The front wheels are the fulcrum when raising a load. You must have sufficient leverage and ballast to offset the loader in front of the front tires. Extreme care and slow speed must be used when raising and dumping a load. Monitor the load at all times.



Lower Operating Speed

Lower your operating speed while digging, loading or performing heavy operations.

Move at slow speeds on rough or uneven terrain while keeping the load low.

Replace Safety Signs

Replace missing or damaged safety signs.

Safety signs and part number locations are identified in this manual.

Replacement safety signs are available from your Westendorf dealer at no cost.

Avoid Rollover

Your tractor may rollover, resulting in death or serious injury. **To avoid rollover:**

- · Travel at a slow speed;
- Carry loads close to the ground;
- Avoid sharp turns and sudden movements on slopes;
- Avoid holes, ditches and other obstructions which may cause the tractor to rollover;
- Balance load so weight is evenly distributed and load is stable;
- Be extra careful when operating on slopes and do not operate on excessively steep slopes;
- · Do not exceed the load capacity of your equipment;
- Be certain tractor tire spacing and rear ballast are correct before using equipment;
- Approach large round or square bales on a slope with the tractor facing uphill.

Avoid Power Lines & Underground Utilities

Death or serious injury can result if equipment comes near or contacts power lines.

Electrocution can occur without direct contact.

ontact.

Check clearance before raising equipment.

Have local utilities locate and mark under ground wires, cables, pipelines and other hazards before digging.

DO NOT leave the operator's seat if any part of the equipment contacts electric lines or cables.

Detach Loader Safely

Detach loader on a firm and level surface. Loader may fall over if detach on unlevel or a soft surface.

Be sure people, livestock and pets are clear of machinery.

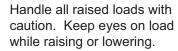
Relieve hydraulic pressure before disconnecting hydraulic hoses.

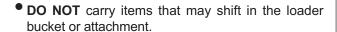


Prevent Falling Loads

ALWAYS secure the load at the source.

Round bales, square bales, posts, stones, logs and other objects can fall or roll from a raised loader or attachment, which may crush the operator or bystanders.





- DO NOT handle round or square bales unless the loader is equipped with the proper bale handling attachment.
- DO NOT handle bales with the pallet fork attachment.
- NEVER travel with a raised load.
- ALWAYS carry loads low and close to the ground.

Transport Loads Safely

Use the proper attachment to lift and carry the load.

Follow the instructions in the appropriate operator's manual for any loader attachments.

Carry loads low and slightly rolled back.

Travel **SLOW** and avoid slopes.

Raised Loader

A raised loader can fall unexpectedly, resulting in death or serious injury.

NEVER enter the area under a raised loader or attachments.

Lower bucket or

attachments to the ground, place tractor transmission in park, shut off engine and remove key before servicing loader or attachments.

Detach loader from tractor to service the tractor.

Avoid High Pressure Fluids

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before connecting or disconnecting hydraulic lines.



Tighten all connections before applying pressure.

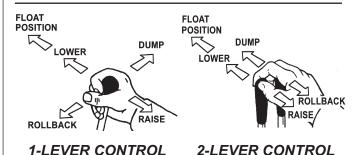
Search for leaks with piece of cardboard or wood. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or serious infection may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source.

DO NOT mount a valve with direct mount joystick inside the tractor cab. Use only a remote cable inside cab.

Hydraulic Control Functions

Check the loader response to the control lever movement. The loader should respond according to the ASAE standards shown. If response is incorrect, check the hydraulic hose connections at the tractor and manifold and correct if necessary. 1-Lever control functions are shown throughout the manual, refer back to this section for operation regarding the 2-Lever control.



ASAE standard \$335.4 shown in above illustrations

The loader lift arms and attachments may be controlled by mechanical controls, electrical controls, or a combination of mechanical/electrical control devices. Movement of the controls for the lift arms and the attachments shall be of the NON-DETENTED TYPE, except for the float position control, which may be held in position by a detent. This does not apply to purpose design automated functions e.g. return to dig.

ASABE standard S583 4.6.1

SECTION 2: SAFETY

This engineering practice is intended as a guide to determine the minimum ballast and tread settings recommended for the operation of a front loader mounted on a 2WD tractor or a tractor with front assist. These ballast and tread setting recommendations are intended to reduce the risk of vehicle overturn during typical operation.

BALLAST refers to cast weights or fluid added to rear tractor tires. Hitch ballast refers to a weight or an implement attached to the tractor three-point hitch. GROSS VEHICLE WEIGHT (GVW) is the sum of front and rear axle weight caused by the mass of the tractor, loader, attachment, payload, ballast and hitch ballast.

Determination of Ballast

AWARNING HAZARD.

CRUSHING

To prevent personal injury or death from tractor loader roll-over, add the recommended amount of ballast to the tractor. Always use a ROPS and wear a seatbelt.

The operational ballast criterion has been met when a minimum of 25% of the gross vehicle weight is retained on the rear axle in a static condition on level ground.

- A mass equivalent to the Lift Capacity maximum height should be placed in the loader bucket, with the boom raised until the bucket pivot pin is the same distance from the ground as the boom pivot (farthest forward position). The rear axle weight and gross vehicle weight should be measured on hard level ground (± 1°) under these conditions. See Figure 1.
- Ballast must be added to the rear wheels and/or hitch

NOTICE

TRACTOR DAMAGE.

To avoid tractor damage use hitch ballast. Failure to use ballast can cause the front axle or other tractor components to be overloaded during loader operation.

until the rear axle weight on level ground is a minimum of 25% of the gross vehicle weight. Ballast added to the rear hitch should be kept as low as practical.

- · When a loader is used in a dedicated situation, an operator may determine the appropriate ballast, based on the maximum load to be carried.
- We recommend ballast, based on the criteria listed in above and knowledge of the physical characteristics of the tractor.

Three Simple Steps

STEP 1: Put weight in the bucket equivalent to the lift capacity of the loader at full lift height. The lift capacity can be found in several locations:

- · Operators manual
- Company Literature
- Visit us online at www.loaders.com
- Or Call Us at 712-423-2762

STEP 2: At the scale get the gross vehicle weight (GVW) with the loader raised so the bucket pivot pin is as high as the boom pivot pin. See Figure 1. Then weigh the rear axle (R).

STEP 3: Formulas to figure ballast. GVW x 25% = Required Rear Axle Weight (RRAW)

< IS LESS THAN > IS GREATER THAN If R>RRAW = No Ballast Required If R<RRAW = Ballast Required

Figure Rear Ballast Required (RBR):

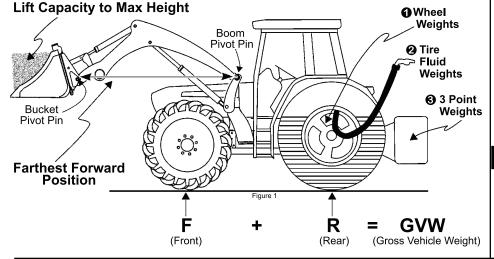
RRAW - R = RBR RBR x 133% = Ballast Required

Note: Since adding ballast increases the total weight adding the difference will not be enough. You need to add approximately 133% of the difference. Depending on where you add the ballast in respect to the rear axle the amount of weight may vary.

Glossary of Terms

GVW = Gross Vehical Weight F = Front Axle Weight R = Rear Axle Weight RRAW = Required Rear Axle Weight RBR = Rear Ballast Required < is Less than and > is Greater than

Types of Ballast



Minimum Tread Settings

The rear wheel width is the most important specification to the balance of your tractor loader operation. Always use approved ROPS and fasten your seat belt.

Minimum tread settings are recommended to provide static stability on a side slope up to 15 degrees under proper rear ballast conditions listed in above. If minimum tread settings are not available in your mounting instructions, minimum rear tread settings should be selected from the following chart:

TRACTOR MAS	SS	MINIMUM REA	R TREAD SETTI	NG
Kg	Lbs	mm	in.	(A)
<2250	<4950	1575	62.0	
2250-3650	4950-8030	1675	65.9	
>3650	>8030	1825	71.8	

Note: These tread settings are recommended for a standard tractor configuration. A tractor with a high center of gravity or an unusual configuration may require a wider minimum tread setting to achieve the same level of stability.

This information refers to ASAE S301.3, Front-End Agricultural Loader Ratings and ASAE S390.3, Definitions and Classifications of Agricultural Field Equipment, to EN12525:2000 Agricultural machinery - Front Loaders - Safety

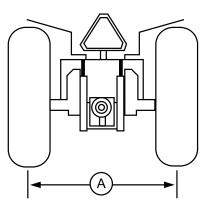


Figure 2 - Rear Tread Setting

Safety Decal Locations

AWARNING

SAFETY DECALS

To protect you and others against death and serious injury:

- · All decals shown must be on the loader
- Safety decals must be legible
- · Replacement all worn or illegible decals immediately
- Provide us with the number shown at bottom of label.



ELECTROCUTION HAZARD

To prevent serious injury or death:

- * Stay away from power lines and cables as electrocution can occur with or without direct contact. If contact occurs, do not leave the tractor seat.
- * Read and understand operator's manual before operating loader.





ROLL-OVER HAZARD

- To prevent serious injury or death: * Move and turn tractor at a low speed.
- * Carry loader arms at a low position at all times
- * Add wheel ballast or rear weight as needed for stability.
- * Move rear wheels to widest recommended settings to increase
- * It is recommended the tractor be equipped with a roll-over protective structure (ROPS) and to fasten seat belt prior to starting engine.
- * Read and understand operator's manual before operating loader.







HIGH-PRESSURE FLUID HAZARD

- To prevent serious injury or death:
- * Relieve pressure on system before repairing, 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 injured by escaping fluid, obtain medical treatment IMMEDIATELY (POISON).
- * Read and understand operator's manual before operating loader.

WARNING



CRUSHING HAZARD

To prevent serious injury or death:

- * Do not handle round bales, large rocks or other shiftable objects unless loader is equipped with an attachment designed to prevent crushing hazard.
- * Do not use loader to handle loose loads that are not secured in the bucket or attachment. Always watch your load.
- * Never lift load higher than necessary.



FALLING HAZARD

To prevent serious injury or death:

* Do not lift, carry or allow anyone to ride on or work from any portion of loader, attachment, or bucket,



OVERHEAD HAZARD

To prevent serious injury or death:

- * Do not allow bystanders in loader work area.
- * Lower loader to the ground before leaving seat.
- Do not walk, stand, or work under raised loader. For servicing, refer to operator's manual.
- * Read and understand operator's manual before operating loader.

For replacements contact: WESTENDORF MANUFACTURING INCORP. HWY 175W PO BOX 29 ONAWA, IA 51040 DF-WID



LEFT SIDE TOWER

SAFETY DECAL LOCATION

These decals are located on the loader and attachments. If any decals become damaged or illegible you can order replacements, free of charge, by writing to:

Westendorf Mfg. Co., Inc. PO Box 29 Onawa, IA 51040-0029

Patented Power-Mount™ WL Loaders

The Power-Mount™ loader was inspired by the time demands of the modern farmer, Westendorf loaders have the fastest mount and dismount in the industry, less than 2 minutes. This all-hydraulic system does not require any tools or cumbersome stands.

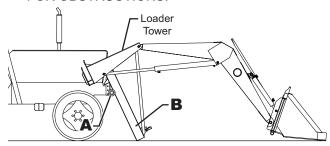
TO MOUNT: Simply drive up to engage loader and hydraulically raise the subframe. Drive into the loader until it automatically locks on.

TO DISMOUNT: Simply lift the locks and back away while hydraulically lowering the subframe to the ground with the lift cylinders. Unhook hoses.



Loader Mounting

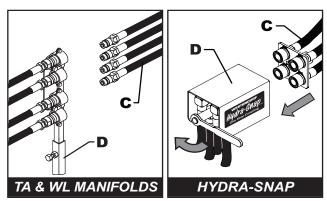
 Slowly drive the tractor up to the loader, centering the tractor between the loader towers until the pocket tube (A) touches the loader side rails (B). WATCH FOR OBSTRUCTIONS.



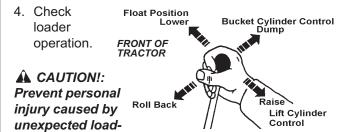
2. Shut tractor off and relieve hydraulic pressure by moving the valve handles on the tractor valve.

WARNING!: Escaping fluid under pressure can penetrate skin causing serious injury. Avoid hazard by relieving pressure before connecting or disconnecting pressure lines. Protect hands body from high pressure fluids. If injured seek immediate medical attention.

Connect loader hoses (C) to manifold couplers (D). If you didn't purchase a manifold, use hoses with high pressure couplers and connect to loader and tractor.

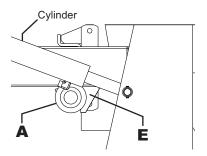


NOTICE: Keep couplers clean to prevent foreign material from contaminating the hydraulic system.



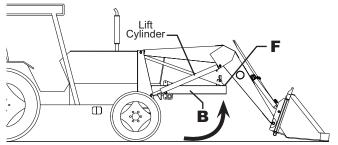
er movement. Hose connections must be correct or loader may not respond as expected when control lever is moved. If you pull the lever to raise the loader and it goes down instead, you could damage property or life. See ASAE standards in Section 2.

 Slowly retract lift cylinders until pivot stops (E) hook the pocket tubes (A). Check both sides to be sure they are hooked.





6. Raise the subframe (F) of the loader by slowly retracting the lift cylinders. Continue raising subframe until the side rails (B) are off the ground and level.



TIP Put tractor in neutral and gently release brake, loader will pull tractor into itself. If any resistance is encountered, slightly tip or dump bucket forward.

Loader Mounting continued

7. Slowly drive tractor into loader. Drive forward until the loader shoe (G) slides onto the cross tube (H).

TIP Extend and retract lift cylinders to raise or lower loader shoes to line up with cross tube.

G 1/2"

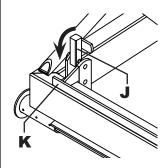
NOTICE! To avoid loader or tractor damage, maintain minimum gap 1/2" between loader shoe and cross tube. DO NOT PUSH on cross tube with loader shoe.

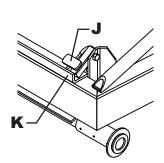
<u>Watch</u> the hydraulic hoses so they don't get pinched as you drive forward. They should loop between the tractor and the loader tower.

NOTICE! To prevent loader or tractor damage, watch for obstructions or objects that "stick out" from tractor that could catch loader and cause damage. 8. Drive forward the last few inches allowing flop locks (J) to drop down behind the pocket (K) and automatically lock loader to the tractor.

UNLOCKED

LOCKED

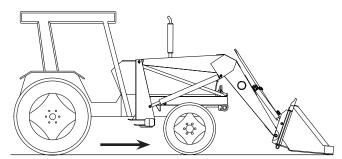




- 9. Check to make sure BOTH flop locks (J) are completely locked down. If not, push the loader onto the brackets further until the flop locks (J) are locked.
- 11. Inspect loader connection prior to operation.
 - Are flop locks secure?
 - Is bucket or attachment latched?
 - Loader operates up and down, bucket dump and rollback according to ASAE standards?
 - Are lubrication points serviced?

Dismount Loader

- 1. Find a level surface to dismount the loader.
- 2. Relieve pressure on flop locks by driving into the loader with the bucket tipped slightly forward while lowered to the ground. Place tractor in PARK.



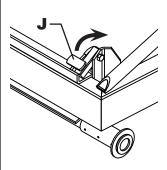
▲ WARNING! To prevent personal injury caused from a falling loader, always detach on a hard, level surface. Detach the loader WITH a bucket or attachment on the loader.

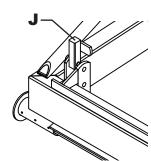


3. UNLOCK the loader from the tractor by raising BOTH flop locks (J).

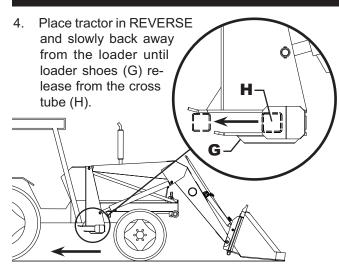


UNLOCKED

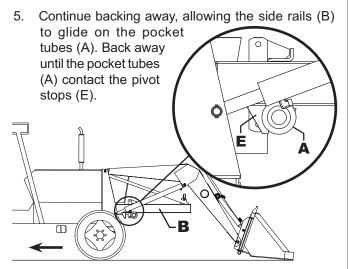




Dismount Loader continued



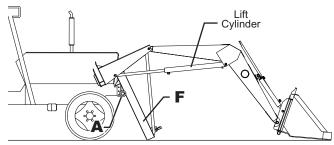
TIP Extend or contract lift cylinders to help free loader shoes from cross tube to glide over side rails. If you encounter any resistance, slightly roll back bucket so heel of bucket is on ground.



NOTICE! To prevent equipment damage, watch for obstructions or objects that "stick out" from tractor that could catch the loader and cause damage.



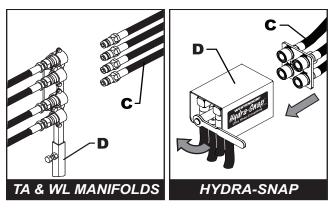
6. Extend the lift cylinders lowering the subframe (F) to the ground. Extend the cylinders until the loader lifts itself off the pocket tube (A).



Put the tractor in neutral and gently release the tractor brake, the loader will push the tractor out away from the loader. Tip bucket downward slightly to allow water to drain.

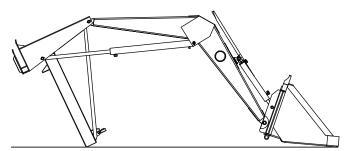
- 6. Place tractor in PARK. Shut off tractor and relieve hydraulic pressure on tractor valves.
- Disconnect loader hoses (C) from manifold couplers (D) and drape hoses over loader to keep tips clean.

TIP Before disconnecting hoses; paint, mark or tag couplers to speed mounting time to assure correct hose connection.



NOTICE: Keep couplers clean to prevent foreign material from contaminating the hydraulic system.

Back away from loader. Tractor is ready for other uses. It's BEST to remove loader when doing field work and servicing the tractor.



NOTICE: Leaving loader on tractor when doing field work will cause premature wear of the loader. Damage to both the tractor and loader can occur.

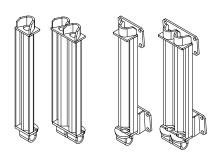
 See storage recommendations in this manual if loader is not going to be used for an extended period of time.

IT DOESN'T WORK RIGHT?

If you are having trouble getting the loader on the tractor brackets, see the Problem Solving tips at the end of this chapter and the Trouble Shooting guide.

If you need help, contact your Westendorf dealer. If you still need assistance, call us at Westendorf Mfg. We will be glad to assist you in any way we can.

Snap-Attach™ Quick Change System



WELD-ON ADAPTERS

BOLT-ON ADAPTERS

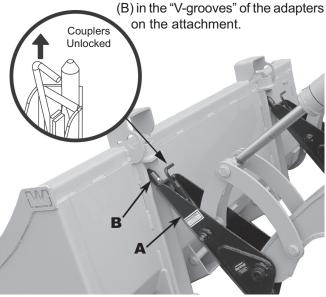
The Snap-AttachTM Quick Change System is a patented system that allows you mount or dismount attachments without the use of tools or multiple trips off the tractor .

The system is standard equipment on most of the Westendorf Loader Line. It is important to keep the pin contact surfaces ("V" grooves and top and bottom pin holes) clean and free of obstructions for safe and proper operation.

Snap-Attach™ adapters are available from Westendorf Manufacturing. If you have attachments that you mount and dismount often, install a set of "C-2" or "C-3" adapters to make the job much easier and safer. If you need to share attachments between multiple loaders, adapters are available to share between 20 & 40 Series and 40 & 70 Series.

Snap-Attach™ Mounting

 With Snap-Attach™ couplers (A) in the unlocked position, drive into attachment centering coupler pins



NOTE This bucket and loader is being shown for illustration purposes. Any loader or attachment may be adapted for use of the Snap-Attach™ Quick Connect System. The adapters available for other attachments are shown above.



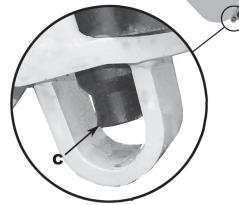


3. Extend bucket cylinders and inspect the coupler to ensure latch is

snap-locked into place and bottom coupler plunger (C) extends through the bottom hole of the adapter.



A CAUTION! Avoid injury from latch pins. Do not use hands to remove pin obstructions while the pins are under spring pressure.



NOTE Make sure plungers are extended through to the largest diameter of the plunger pins. Remove all obstructions, such as dirt and rocks, which might prevent the top or bottom pins from extending through the holes completely. Ensure the "V-grooves" are clean to permit smooth pin travel during mounting.

NOTICE

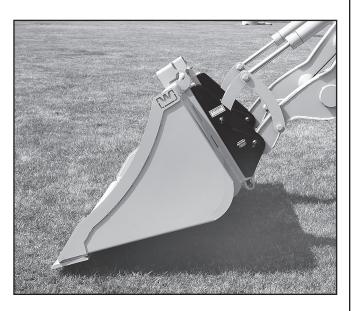
LOADER DAMAGE.

To prevent loader damage:

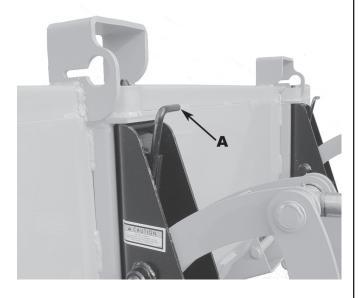
- Use only approved Westendorf attachments or attachments with equivalent specifications.
- See chart on last page of section (Section 3)

Snap-Attach™ Dismounting

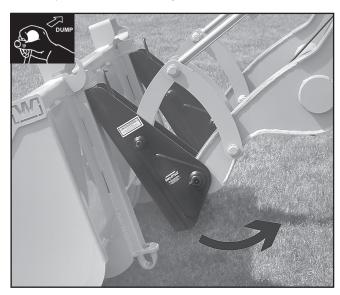
Position bucket as shown below to reduce pressure on latch handles. Raise bucket slightly off ground and slightly dump the bucket.



2. Standing inside the bucket, lift handles (A) up and outward to release the handles.



▲ WARNING! Never step into the bucket when the bucket is over 2 inches above the ground or when the driver is in the tractor seat. Step into the bucket ONLY to lift the latch handles. 3. **Slowly** move hydraulic control lever to extend (dump) the bucket cylinders. This will swing the bottom of Snap-Attach™ unit away from attachment.



4. Lower the loader arms and slowly back away from the attachment.



NOTE Remove all obstructions, such as dirt and rocks, which might prevent the top or bottom pins from extending through the holes. Ensure the "V-grooves" are clean to permit smooth pin travel during mounting.

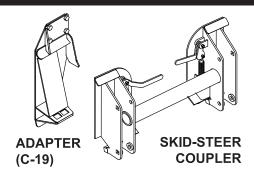


LOADER DAMAGE.

To prevent loader damage:

- Use only approved Westendorf attachments or attachments with equivalent specifications.
- See chart on last page of this section

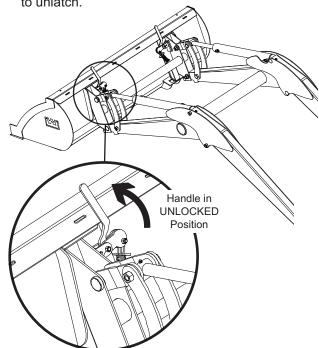
OPTIONAL - Skid Steer Coupling



The Optional Skid Steer Coupling adapter allows you mount or dismount attachments without using tools. Just raise or lower levers to connect and disconnect implements.

Easily convert existing attachments by installing a C-19 adapters to make the job easier and safer.

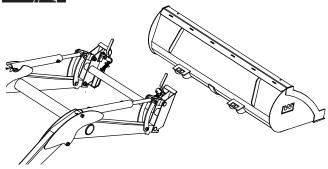
 TO DETACH bucket or attachment, find a clear, level place. With bucket tipped forward, rotate handles to unlatch.



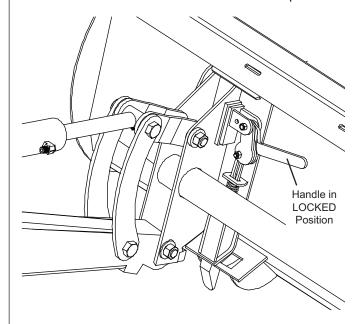
ACAUTION! Do not attempt to uncouple bucket or attachment while someone is near or operating hydraulic controls.



2. Retract lift cylinders to lower coupler until they clear the top lip of the bucket. Slowly back away.



3. **TO ATTACH** Reverse above steps. Make sure the latch handles are placed in the LOCKED position when attachment installed to the coupler.



TIPS

- When unlocking coupler, raise edge of the bucket off ground to take pressure off latch on quick attach.
- If the latch handles won't stay unlocked, tip the bucket forward some to make it easier.
- If bucket is not going to be used for a long period of time we suggest placing bucket so rain water will drain easily.

Approved Attachments

When using your attachment or selecting attachments for your skid steer or front-end loader use the following chart to determine which attachments are approved for your applications.

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SQ-80	Squeezer		L							•	•	•	•		•	• •	•	•	•	• •	•		(4)		(4)	_			(4)	•		(4)			•
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SP-43	3-Prong Bale Spear						-	•	•	•	•	•	•	•	•	• •	•	•	•	• •	•			•		•	•	•		•	•				•
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SS-II-3L	Stack Saver - II					J	T	T		•	•	•	•	-	•	• •	•	•	•	• •	•	•	•	•	•	_		•	•	•	•	•	•	_	•
SS-II-4	Stack Saver - II		_							•	•	•	•	•	•	• •	•	•	•	• •	•	•	•	•	•	•	•	•	•	•	•	•	•		• •
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DB-96	96" Heavy Duty Dozer Blade	+	╀		\vdash	\dashv	+	+	+	₽		•	•	-	+	+	+	•	•	• •	•	•	•	•	•	\dashv	-	•	:	•	•	•	•	\dashv	•
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FORK LIFT	ATTACHMENTS																																		
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FL-48	Heavy Duty Fork Lift w/48" Teeth	-	Ł	H	Н	-	- '	•	•	•	•	•	•	•	•	• •	•	•	•	• •	•	•	•	•	•	•	•	•	•	•	•	•	•	-	•
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FB-42 FBB-112	Fork Bucket Feed Bunk Bucket	-	-		Н	-	+	+	+	•	•	•	•	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•	:	•	•	•	•	-	•
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GF-32	Sabretooth for Tine Bucket									•	•	•	•		•	• •	•	•	•	• •	•	•	•	•	•	_		•	•	•	•	•	\rightarrow	•	•
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GF-51	Monster Grab Fork											•	•							• •	•	•	•	•	•									ľ	(5
GF-52	Monster Grab Fork	1	L	L	Ш	_	_	1	1	L		•	•	4	4	_				• •	Ť	•	•	•	•	_	_		4		_		4	4	(5
GF-64	Quick Mount Claw Grab Fork	+	\vdash	-	\square	\dashv	+	+	-	₽	\vdash	•	•	-	+	+	•		•	• •	•	•	•	•	•	\dashv	-		4	4	-		4	\dashv	\perp
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GF-196-3D BRUSH CR BC-3000	Brush Crusher - Small		•	•	•	•	•	•	•	(1)	•			\rightarrow	•	•	•	•	•	• •	•	•	•	•	•	•	•	•	•	•	•	•	•	_	•
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BRUSH CR BC-3000 BC-4000 BC-5000 BC-6000 BC-7000 BC-7000 BC-7700 BC-7700 BC-8000	Brush Crusher - Small Brush Crusher - Medium Brush Crusher - Large Brush Crusher - Large Brush Crusher - w/Power Teeth 56" Brush Crusher - w/Power Teeth 56" Brush Crusher - BC-7000 56" BC w/Power & Finish Teeth 72" Brush Crusher - w/Power Teeth		(2) (2) (2)	(2)	(2)	(2)	(2)	• (2	2) (2	(1) (1) (1))	•	•	•	(2) (2) (2)	•	• •			•			•	•	•	•	•	•	•	•	•	•	•	•	•	•

NOTE: When ordering Brush Crusher indicate if your loader is self-leveling.

(1) With Snap-Attach use BC-5000 or 6000, if pin type use BC-4000 (4) When ordering for 70 Series loader, requires P-7 Extension Plate (5) Requires 90" Bucket

(2) Requires Skid Steer Coupler

(3) When equipped with HDHC Bucket

Safety - Live With It

- Operate equipment safely. Read and understand this manual, and the tractor manual before operating this equipment.
- It is your responsibility to operate this equipment safely. You must be familiar with the equipment and all safety practices before use. Do not allow untrained or unqualified persons to operate this equipment.
- Keep bystanders away from equipment while in use.
- The tractor must be equipped with ROPS or ROPS cab. If equipped with folding ROPS, keep ROPS in the "locked up" position at all times.
- Wear close fitting clothing and safety equipment appropriate to the job. Do not wear music or radio headphones while operating equipment.

Pre-Operation Check List

It is the operators responsibility to perform the following checks prior to each operation of the equipment.

- Review and understand the Safety section in this manual and tractor manual.
- Verify safety decals are installed and legible. Replace if damaged or missing.
- Verify that all hardware is tight and loader is properly attached to tractor.
- Verify that any attachments are properly installed.
- Verify that local utilities have marked all underground wires, cables and pipelines. Do not dig if this has not be done
- Check hydraulic hoses for damage and leaks. Replace damaged or leaking hoses before use.
- Check that tractor ROPS or ROPS cab and seat belt are in good condition.
- Before starting tractor engine, operator must be seated on the tractor seat with the seat belt securely fastened.
 Refer to your tractor operator's manual for prestarting instructions.

Preparing The Tractor

Know the lifting capacity of your loader and tractor.

Add ballast and/or rear weight according to tractor manufacturer's recommendations to provide optimum stability. See following page.

Position the tractor wheels to widest recommended setting to provide optimum stability.

AWARNING

CRUSHING HAZARD.

To prevent tractor roll over:

- · Add the recommended ballast.
- Position wheels as wide as possible to improve tractor stability.
- See your tractor operator's manual for ballast and tire setting recommendations.

Front Tire Pressure

Inflate 2-wheel drive front tires to recommended pressure for heavy front mounted implements.

Inflate 4-wheel drive front tires 4 psi above recommended pressure for heavy front mounted implements.

Check your Tractor Operator's Manual for recommended tire pressure.

Remove Front Weights

Remove the front tractor weights. Some installations allow you to leave the weight bracket on the tractor while others will require removal.

Check and tighten all the wheel bolts after the first 4 and 8 hours of operation. Check and tighten frequently during the first 100 hours of operation.

NOTICE

TRACTOR DAMAGE.

To prevent tractor damage:

- · Remove front tractor weights.
- · Keep front wheel bolts tight.

Attach Mounting Brackets

Refer to the mounting instructions. The brackets, bolts, hardware and instructions are packaged together in a wooden box.

Follow the instructions for attaching the mounting brackets to the tractor's frame.

Complete the manifold kit installation (hydraulic couplers).

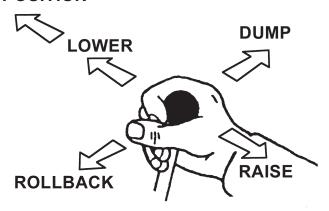
After completing the bracket installation, return to these instructions to finish preparing the tractor and loader before mounting the loader.

Keep the bracket mounting instruction stored with this Operator's Manual.

Hydraulic Control Functions

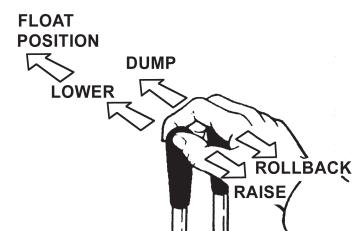
Check the loader response to the control lever movement. The loader should respond according to the ASAE standards shown. If response is incorrect, check the hydraulic hose connections at the tractor and manifold and correct if necessary. 1-Lever control functions will be shown throughout the manual, refer back to this section for operation regarding the 2-Lever control.

FLOAT POSITION



1-LEVER CONTROL

ASAE standard S335.4 shown in illustration



2-LEVER CONTROL

ASAE standard S335.4 shown in illustration

RAISE - Pull control lever rearward to raise the bucket or attachment.

<u>LOWER</u> - Push control lever forward to lower the bucket or attachment.

<u>DUMP</u> - Move the control lever to the right to dump the bucket or attachment.

ROLLBACK - Move control lever to the left to roll the bucket or attachment back after dumping.

<u>FLOAT</u> - The float position allows the bucket or attachment to follow the contour of the surface. To place control lever in float, lower the bucket or attachment and then push the control lever fully forward into detent. The control lever will remain in detent until manually pulled back out of detent to deactivate float.

AWARNING CRUSHING HAZARD.

To prevent automatic loader movement:

- Operate loader from the operator's seat only.
- Remain at the controls until the operation cycle is fully complete.
- Lock-out valve "detent" when operating loader. See your tractor operator's manual.

NOTE Oil flow limitations may not allow you to do two operations at one time such as RAISE and ROLL BACK. The operation that requires the least amount of force will move first.

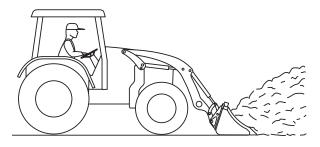
NOTE If hoses are not supplied by Westendorf Manufacturing Co., make sure they are of a quality that meets the ASAE S583 standard outline in 4.6.1.

Loader Operation

Refer to the tractor operator's manual for a safe RPM to run the tractor engine.

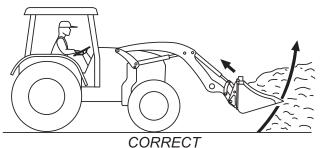
Fill The Bucket From A Pile

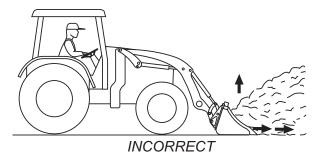
Approach and enter the pile straight in with a level bucket. Ease the control lever back and toward you simultaneously to raise and rollback the bucket to breakaway the load from the pile.





Raise and rollback the bucket to increase your efficiency when filling the bucket.





A level bucket throughout the lifting cycle resists lifting and will require more power to break away.

NOTICE

LOADER DAMAGE.

To avoid loader damage:

- Enter the pile straight on.
- · Do not attempt to turn while entering the pile.
- Turning while entering can cause damage to the loader and/or the tractor.

Lifting The Load

Two types of leveling systems available for loaders:

- Standard
- Level UP Advantage™

STANDARD - self-leveling requires the operator to level the load as it is raised.



Ease the single lever control back and away from you to lift and level the load as it is raised.

LEVEL UP ADVANTAGE™ - the hydraulic load leveling system automatically levels the load as the loader is raised.



The operator simply pulls back on the control lever and the load will raise and remain level.

AWARNING

FALLING HAZARD.



ADANGER

ELECTROCUTION HAZARD.





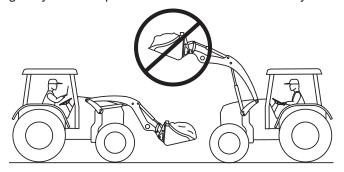
 DO NOT leave operator's seat if any part of equipment contacts power lines

or cables.

Carrying The Load

Position the load as low as possible below the level of the tractor hood for maximum stability and visibility.

Use extreme caution when operating on a slope. Keep the load as low as possible. This keeps the center of gravity low and provides maximum tractor stability.



CARRY LOAD LOW

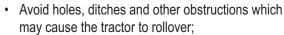
DON'T CARRY HIGH

AWARNING

CRUSHING HAZARD.

To prevent tractor roll over:

- Travel at slow speed;
- · Carry loads close to the ground;
- · Avoid sharp turns and sudden movements on slopes;
- · Balance load so weight is evenly distributed and load



- · Be extra careful when operating on slopes and do not operate on excessively steep slopes;
- Do not exceed the load capacity of your equipment;
- · Be certain tractor tire spacing and rear ballast are correct before using equipment;
- · Approach large round or square bales on a slope with the tractor facing uphill.

NOTIC:

LOADER DAMAGE.

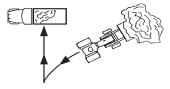
To prevent damage to loader and/or tractor:

- Stop loader gradually when lowering heavy loads.
- · NEVER drop a load and "catch" hydraulically.
- · Hydraulically stopping a load after it has gained downward momentum can damage the loader and/or tractor.

Dumping The Load

Handle all raised loads with caution. Keep eyes on load while raising or lowering to be sure the load does not fall out of the back of the bucket.

NEVER travel with a raised load. Raise the load when approaching equipment. Keep loads close to work area to minimize travel time. Keep loading area level



Use "V" Method For Loading

to prevent rollover. Do not raise load higher than required while dumping.



Dump the load by moving the control level



After dumping the load, back away and move the single lever control forward and inward to lower and rollback the bucket.

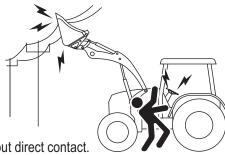
ADANGE

ELECTROCUTION HAZARD.

To prevent electrocution:



Electrocution can occur without direct contact.





· DO NOT leave operator's seat if any part of equipment contacts power lines or cables.

AWARNING

CRUSHING HAZARD.

To prevent death or serious injury:

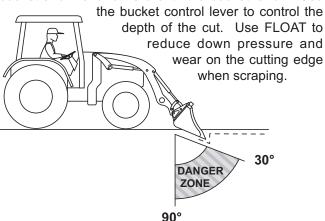
- **NEVER** enter area under a raised loader or attachment.
- A raised loader can fall unexpectedly, resulting in death or serious injury.



Peeling and Scraping

Angle the bucket slightly, move forward slowly and lower the bucket to start the cut.

When the bucket has penetrated the material, level the bucket and move forward until the bucket is full. Use



Make additional passes until desired depth is reached.

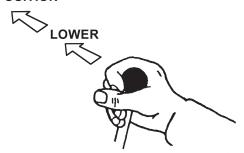


TIP Pushing with the material in the bucket will save time.

Operating With Float Control

While working on a hard surface, level the bucket and place control lever in float detent. This will allow the bucket to "float" and follow the surface contour.

FLOAT POSITION

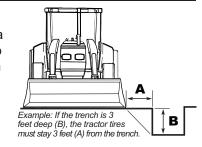


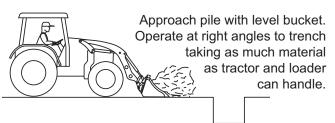
To place control lever in float, lower bucket or attachment and push control lever fully forward into detent. The control lever will remain in detent until manually pulled back out of detent to deactivate float. Using float will also prevent surface gouging and the mixing of the surface material with the stockpile material.

Backfill and Backgrade

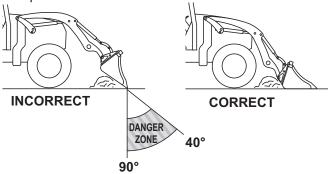
BACKFILLING -

To reduce the risk of a trench caving in, keep tractor tires back from the trench, the same distance as the depth of the trench.





BACKGRADING - Backgrade with heel of bucket only, or use optional BACKDRAG BLADE. Place control lever in float position so bucket follows the contour of the surface.



NOTICE

LOADER DAMAGE.

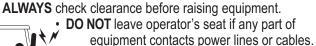
- Backfilling and backgrading with the bucket dumped may damage the bucket control cylinders.
- If bucket hits a solid object while INCORRECTLY positioned, you will damage your cylinders, linkage and/or cutting edge.
- Backfill and backgrade with the bucket level.

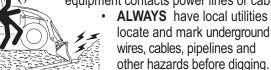
ADANGER

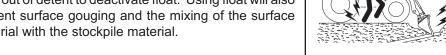
ELECTROCUTION HAZARD.

To prevent electrocution:

- **NEVER** let equipment near or contact power lines.
- Electrocution can occur without direct contact.



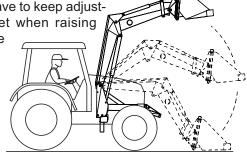




Mechanical Self-Leveling

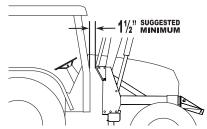
The mechanical self-leveling loader utilizes a system of linkages and hinge plates that keeps the bucket in the position you set it during operation.

You will not have to keep adjusting the bucket when raising or lowering the loader arms.



CHECK FOR CLEARANCE - Protect your cab during the first time mounting of your self-leveling loader or add-on self-leveling kit. Raise the loader slowly, as you do this,

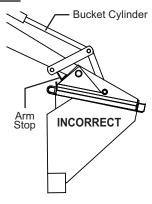
check for clearance. You should maintain 1-1/2" or more clearance between the rear linkage arms and the cab when the loader is fully raised.



NEVER ALLOW THIS POSITION

The self-leveling linkage will maintain the bucket position you set it in before you begin raising the loader.

DO NOT DUMP BUCKET FULLY AND RAISE THE LOADER. The linkage *must* move forward to function. If the bucket is set in the fully dumped position, the linkage will not have room to adjust when the loader is raised.



A built-in hydraulic relief valve on loader will relieve some stress if the loader accidentally gets into this position. It is not recommended to operate in this position as it will cause damage to the self-leveling if not avoided. A high pitched squeal is an indication that the relief valve is bypassing and you should STOP and adjust bucket away from the Arm Stop to prevent damage.

LOADER DAMAGE.

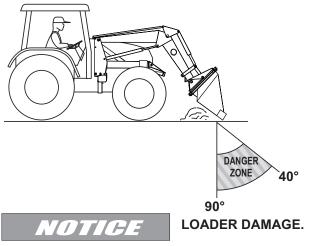
To prevent loader damage:

- · DO NOT fully dump the bucket and raise loader with mechanical self-leveling loader.
- STOP if loader is squealing, adjust bucket angle away from arm stop to avoid serious damage to loader selfleveling linkage, loader and/or tractor.

Backgrade with Self-Leveling

BACKGRADING - When back-grading with a mechanical self-leveling loader, be sure and keep the bucket angle at 40° or LESS. If you go beyond the 40° you may damage the loader's self-leveling linkage from the excessive pressure being applied against them.

Backgrade with heel of bucket only, or use optional BACKDRAG BLADE. Place control lever in float position so bucket follows the contour of the surface.



To prevent loader damage:

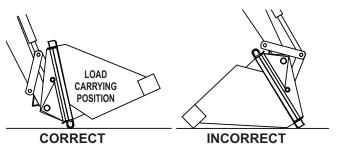
- · Backgrade with "heel" of bucket only, or use optional BACKDRAG BLADE.
- Place control lever in float position to reduce down pressure allowing bucket to follow or float along the contour of the ground.

Mounting & Dismounting

DISMOUNTING A SELF-LEVELING LOADER:

When the lift cylinders are extended, allowing the front wrap to lower to the ground, the self-leveling linkage will reposition the bucket (trying to keep it level). To compensate for this movement, set the bucket in the load carrying position or fully rolled back when dismounting loader.

Once front wrap fully extends to ground, the bucket will be slightly tipped forward allowing moisture to run out.



DO NOT curl the bucket into the fully dump position and try to dismount, this will cause the relief valve to bypass and may cause damage to the loader or tractor.

Maintenance Checklist

Perform scheduled maintenance as outlined below.

- 1. Lower the bucket or attachment to the ground, or remove loader on level surface to perform maintenance.
- 2. Turn off tractor engine, remove key, and set tractor parking brake before performing inspections.

AWARNING CRUSHING HAZARD.

To prevent automatic loader movement:

- · Operate loader from the operator's seat only.
- Remain at the controls until the operation cycle is fully complete.
- Lock-out valve "detent" when operating loader. See your tractor operator's manual.

- 3. Relieve hydraulic pressure. Use wood or cardboard to inspect hydraulic hoses, lines and fittings for damage, wear and leaks. Repair or replace as necessary.
- 4. Inspect pivot pins for wear. Be certain retaining roll pins, pin lock, bolts or other retaining devices are installed on each pin.
- 5. Check all mounting hardware for tightness. Use the torque charts in this section.
- 6. Lubricate the loader grease fittings as shown below.
- 7. While in use, listen for abnormal or unusual sounds that may indicate worn, loose or damaged parts.
- 8. After each use, clean loader and verify all safety decals are legible and not damaged. Replace damaged safety decals.

Torque Chart

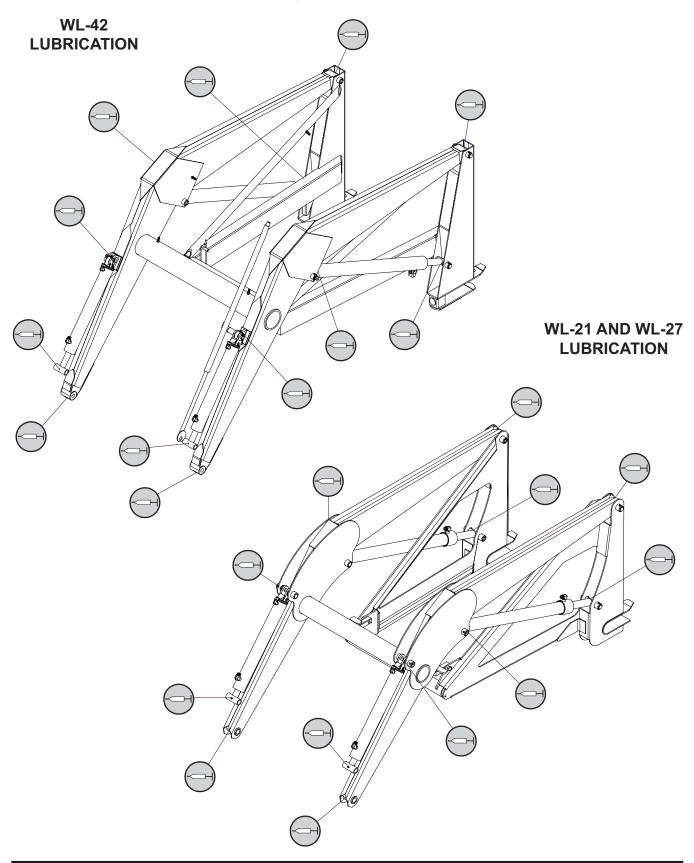
- 1. ALWAYS tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.
- 2. Fasteners MUST always be replaced with the same grade as specified in the manual parts list
- 3. Always use proper tools for tightening hardware: SAE for SAE hardware and Metric for Metric hardware.
- 4. Make sure fastener threads are clean and you start thread engagement properly.
- All torque values are given to specifications used on hardware defined by SAE J1701 & J1701M.
- "Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings.
- "Dry" means plain or zinc plated without any lubrication.

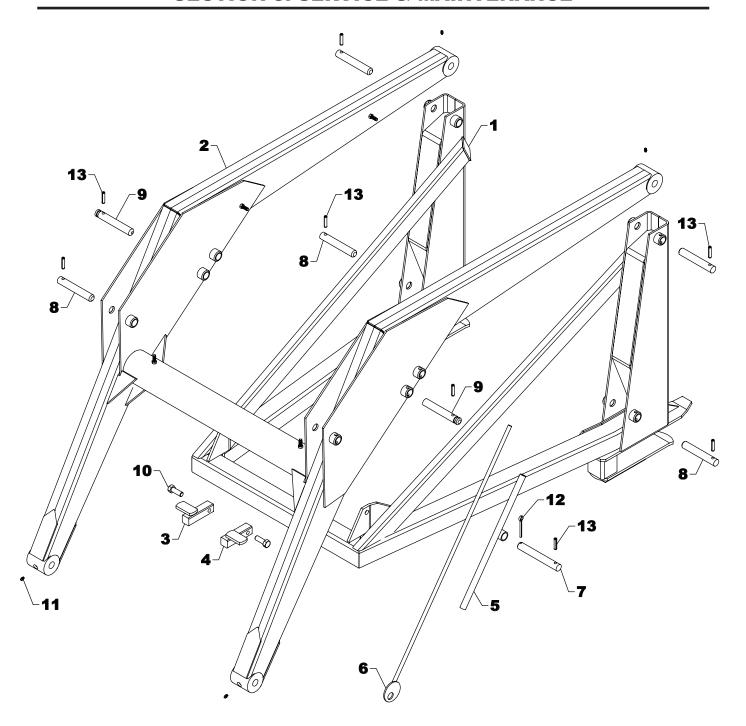
ı			SAE	Torque-Tens	ion Values				
	Bolt Size	Gra	ode 2	Gra	de 5	Grade 8			
	O.Z.C	DRY lb-ft (N•m)	LUBRICATED lb-ft (N•m)	DRY lb-ft (N•m)	LUBRICATED lb-ft (N•m)	DRY lb-ft (N•m)	LUBRICATED lb-ft (N•m)		
[1/4-28	6 (9)	5 (6)	10 (14)	7 (10)	14 (19)	10 (14)		
	1/4-20	6 (9)	4 (5)	8 (11)	6 (9)	12 (16)	9 (13)		
ı	5/16-24	13 (18)	9 (13)	19 (26)	14 (19)	27 (36)	20 (27)		
ı	5/16-18	11 (15)	8 (11)	17 (23)	13 (18)	25 (33)	18 (25)		
ſ	3/8-24	23 (31)	17 (23)	35 (47)	26 (35)	49 (67)	37 (50)		
ı	3/8-16	20 (27)	15 (20)	31 (42)	23 (31)	44 (59)	33 (44)		
ſ	7/16-20	36 (48)	27 (36)	55 (75)	41 (56)	78 (106)	58 (79)		
ı	7/16-14	32 (43)	25 (33)	49 (67)	37 (50)	70 (95)	52 (71)		
s [1/2-20	55 (75)	41 (56)	85 (115)	64 (86)	120 (163)	90 (122)		
1	1/2-13	49 (67)	37 (50)	75 (100)	57 (77)	106 (144)	80 (108)		
ı	9/16-18	78 (106)	59 (80)	121 (164)	91 (123)	171 (232)	128 (174)		
ı	9/16-12	70 (95)	53 (72)	109 (148)	82 (111)	154 (209)	115 (156)		
ı	5/8-18	110 (149)	82 (111)	170 (231)	127 (172)	240 (325)	180 (244)		
ı	5/8-11	97 (132)	73 (99)	150 (204)	113 (153)	212 (287)	159 (216)		
ı	3/4-16	192 (260)	144 (195)	297 (403)	223 (302)	420 (569)	315 (427)		
ı	3/4-10	172 (233)	129 (175)	269 (365)	201 (273)	376 (510)	282 (382)		
Ţ	1-12			704 (954)	528 (716)	995 (1350)	746 (1010)		
	1-8			644 (873)	483 (655)	909 (1230)	681 (923)		

	Metric Torque-Tension Values									
Bolt Size		.8 ss 4.8		.8) ss 8.8		.9 s 10.9		2.9 s 12.9		
O IZC	DRY lb-ft (N•m)	LUBRICATED Ib-ft (N•m)	DRY lb-ft (N•m)	LUBRICATED lb-ft (N•m)	DRY lb-ft (N•m)	LUBRICATED lb-ft (N•m)	DRY lb-ft (N•m)	LUBRICATED Ib-ft (N•m)		
M6	4.7 (3.5)	6 (4.5)	8.9 (6.5)	11.3 (8.5)	13 (9.5)	16.5 (12)	15.5 (11.5)	19.5 (14.5)		
M8	11.5 (8.5)	14.5 (10.5)	22 (16)	27.5 (20)	32 (23.5)	40 (29.5)	37 (27.5)	47 (35)		
M10	23 (17)	29 (21)	43 (32)	55 (40)	63 (46)	80 (59)	75 (55)	95 (70)		
M12	40 (29.5)	50 (37)	75 (55)	95 (70)	110 (80)	140 (105)	130 (95)	165 (120)		
M14	63 (46)	80 (59)	120 (88)	150 (110)	175 (130)	220 (165)	205 (150)	260 (190)		
M16	100 (74)	125 (92)	190 (140)	240 (175)	275 (200)	350 (255)	320 (235)	400 (300)		
M18	135 (100)	170 (125)	265 (195)	330 (245)	375 (275)	475 (350)	440 (325)	560 (410)		
M20	190 (140)	245 (180)	375 (275)	475 (350)	530 (390)	675 (500)	625 (460)	790 (580)		
M22	265 (195)	330 (245)	510 (375)	650 (480)	725 (535)	920 (680)	850 (625)	1080 (800)		
M24	330 (245)	425 (315)	650 (480)	820 (600)	920 (680)	1150 (850)	1080 (800)	1350 (1000)		

Lubrication

Grease all zerks noted below every 10-12 hours. Failure to grease the loader may result in premature wear. All zerks can be accessed with the loader on tractor, arms down and the attachment level.



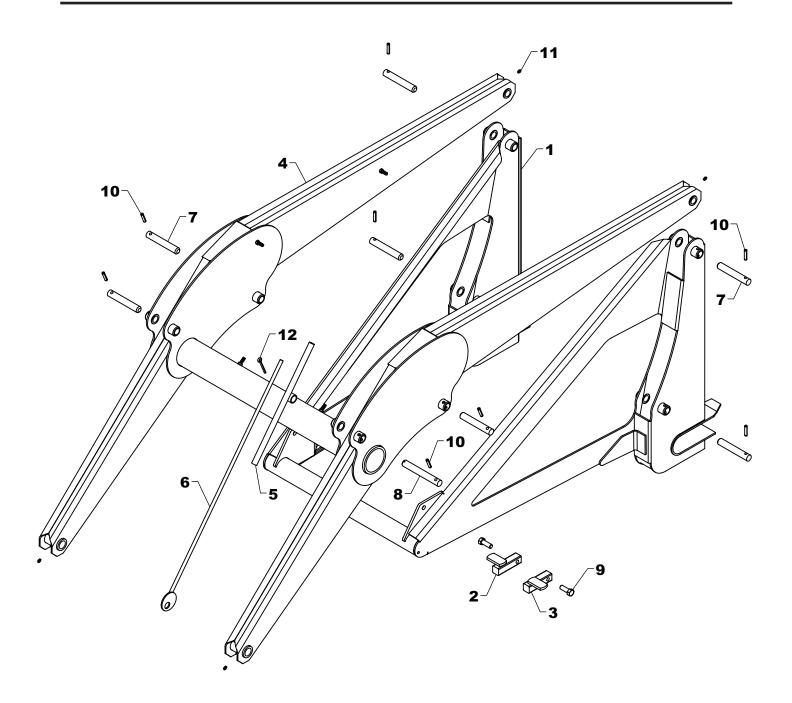


WL-21 LOADER FRAME AND TOWER REPLACEMENT PARTS

REF#	PART#	DESCRIPTION	QTY.
1	JT-12AS	TOWER	1
2	JF-4AS	FRAME	1
3	BT-18AS - R	FLIP LOCK (RIGHT)	1
4	BT-18AS - L	FLIP LOCK (LEFT)	1
5	JF-56AS	OUTER GAUGE ROD	1
6	JF-57AS	GAUGE ROD	1
7	JF-65	PIN	1

REF#	PART #	DESCRIPTION	QTY.
8	JT-20	PIN	5
9	LF-81	LIFT PIN	2
10	HHS1011028	5/8" X 1 3/4" BOLT	2
11	ZER1805	GREASE FITTING	4
12	CTK0400032	1/4" X 2" COTTER KEY	1
13	DRP0600028	DOUBLE ROLL PIN	8

WESTENDORFMFG PWB212050

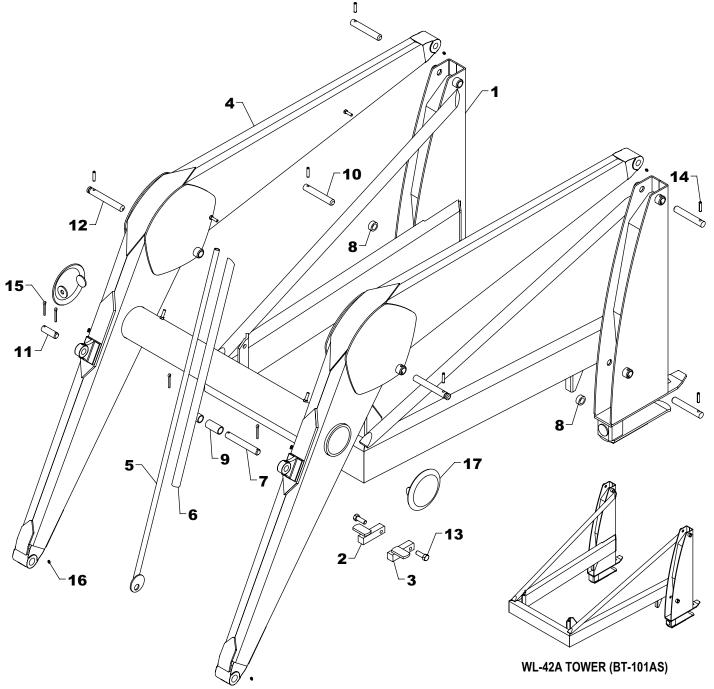


WL-27 LOADER FRAME AND TOWER REPLACEMENT PARTS

REF#	PART#	DESCRIPTION	QTY.
1	JAT-12AS	TOWER	1
2	BT-18AS - R	FLIP LOCK (RIGHT)	1
3	BT-18AS - L	FLIP LOCK (LEFT)	1
4	JAF-4AS	FRAME	1
5	JF-56AS	OUTER GAUGE ROD	1
6	JF-57AS	GAUGE ROD	1

REF#	PART#	DESCRIPTION	QTY.
7	JT-20	PIN	7
8	JF-65	PIN	1
9	HHS1011028	5/8" X 1 3/4" BOLT	2
10	DRP0600028	DOUBLE ROLL PIN	8
11	ZER1805	GREASE FITTING	4
12	CTK0400032	1/4" X 2" COTTER KEY	1

WESTENDORFMFG PWB216170

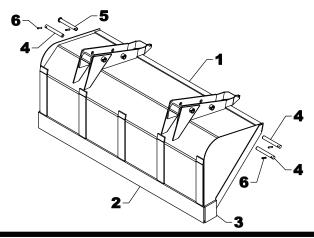


WL-42 LOADER REPLACEMENT PARTS

REF#	PART #	DESCRIPTION	QTY.
1	BT-1AS	TOWER (WL-42)	1
	BT-101AS	TOWER (WL-42A)	1
2	BT-18AS - R	FLIP LOCK (RIGHT)	1
3	BT-18AS - L	FLIP LOCK (LEFT)	1
4	BF-4AS	FRAME	1
5	BF-47AS	GAUGE ROD	1
6	BF-50AS	GAUGE ROD HOLDER	1
7	BF-59	PIN	1
8	BF-60	SPACER BUSHING	2

REF#	PART#	DESCRIPTION	QTY.
9	BF-61	GAUGE ROD SPACER	1
10	JT-20	PIN	4
11	LF-49	PIN	1
12	LF-82	LIFT PIN	2
13	HHS1011028	5/8" X 1 3/4" BOLT	2
14	DRP0600028	DOUBLE ROLL PIN	6
15	CTK0400032	1/4" X 2" COTTER KEY	4
16	ZER1805	GREASE FITTING	6
17	FMF-43AS	CAP	2

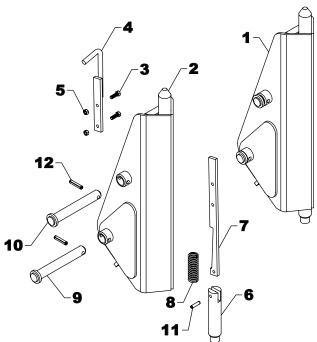
WESTENDORFMFG SJG311211



WL-21 BUCKET

REF#	PART#	DESCRIPTION	QTY.
1	72P214	72" BUCKET	1
2	JB-14	72" BLADE	1
3	SB-15	BLADE	2
4	LF-52	PIN	3
5	QC-306AS	PIN	1
6	RLP0600028	3/8" X 1 3/4" ROLL PIN	4

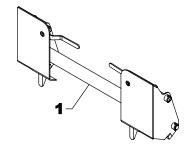
NOTE: *Check width of the bucket and use the part number that matches. If your size is not shown, contact Westendorf Mfg. Co.



WL-21 OPTIONAL SNAP-ATTACH™ COUPLER (C-6)

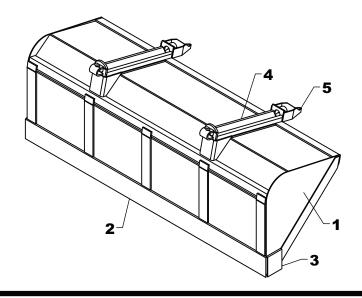
REF#	PART#	DESCRIPTION	QTY.
1	QC-301COM	MALE COUPLER COMPLETE	1
2	QC-301AS	MALE COUPLER	1
3	HHS0518016	5/16" X 1" BOLT	2
4	QC-6AS	LATCH HANDLE	1
5	HTN0518	5/16" LOCK NUT	2
6	QC-3	BOTTOM LATCH PIN	1
7	QC-8	LATCH	1
8	QC-12	SPRING	1
9	QC-306AS	PIN	1
10	LMF-18AS	CYLINDER PIN	1
11	RLP0500020	5/16" X 1 1/4" ROLL PIN	1
12	DRP0600028	DOUBLE ROLL PIN	2

NOTE: Qty. shows the number of parts you will receive if you place an order using these part numbers. C-6 is two(QC-301COM) couplers.



WL-21 OPTIONAL SKID STEER COUPLER

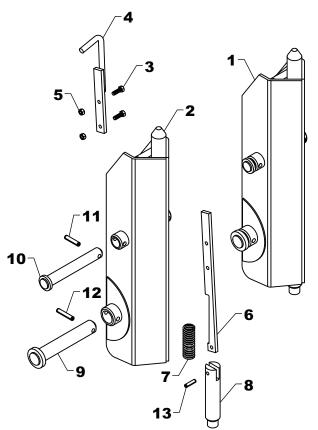
REF#	PART#	DESCRIPTION	QTY
1	C-31	SKID STEER COUPLER	1



WL-27 BUCKET

REF#	PART#	DESCRIPTION	QTY.
1	72Q214	72" BUCKET	1
'	84Q216	84" BUCKET	1
2	JB-14	72" BLADE	1
	SB-14	84" BLADE	1
3	SB-15	BLADE	2
4	QC-13AS	WELD ON ADAPTER	2
5	JB-22	GUIDE (OPTIONAL)	2

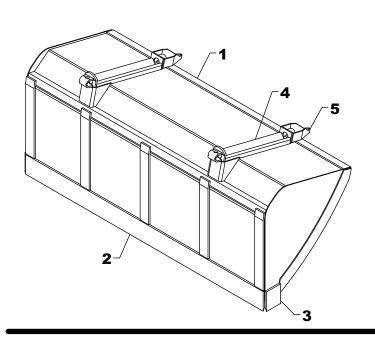
NOTE: *Check width of the bucket and use the part number that matches. If your size is not shown, contact Westendorf Mfg. Co.



WL-27 / WL-42 SNAP-ATTACH™ COUPLER (C-5)

REF#	PART#	DESCRIPTION	QTY.
1	QC-501COM	MALE COUPLER COMPLETE	1
2	QC-501AS	MALE COUPLER	1
3	HHS0518016	5/16" X 1" BOLT	2
4	QC-6AS	LATCH HANDLE	1
5	HTN0518	5/16" LOCK NUT	2
6	QC-8	LATCH	1
7	QC-12	SPRING	1
8	QC-3	BOTTOM LATCH PIN	1
9	QC-206AS	LINKAGE PIN	1
10	LMF-18AS	CYLINDER PIN ASSEMBLY	1
11	DRP0600028	DOUBLE ROLL PIN	1
12	DRP0600032	DOUBLE ROLL PIN	1
13	RLP0500020	5/16" X 1 1/4" ROLL PIN	1

NOTE: Qty. shows number of parts received if ordered using listed part numbers.
C-5 is two (QC-501COM) couplers.



WL-42 BUCKET

REF#	PART#	DESCRIPTION	QTY.
_	84Q425	84" BUCKET	1
'	96Q429	96" BUCKET	1
2	SB-14	84" BLADE	1
_	CB-14	96" BLADE	1
3	SB-15	BLADE	2
4	QC-13AS	WELD ON ADAPTER	2
5	JB-22	GUIDE (OPTIONAL)	2

NOTE: *Check width of the bucket and use the part number that matches. If your size is not shown, contact Westendorf Mfg. Co.

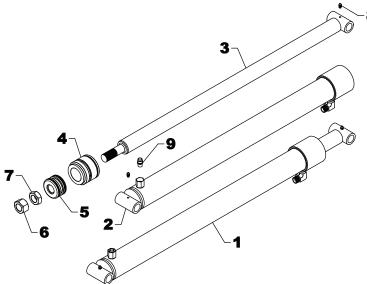
WL SERIES COSMETICS

REF#	PART#	DESCRIPTION	QTY.
	DEC-21	DECAL KIT (WL-21)	1
1	DEC-27	DECAL KIT (WL-27)	1
	DEC-42	DECAL KIT (WL-42)	1
2	V-5403-A	RED SPRAY PAINT	1
	V-9524-A	BLACK SPRAY PAINT	1

REF#	PART#	DESCRIPTION	QTY
3	V-5403-P	PINT RED PAINT	1
3	V-9524-P	PINT BLACK PAINT	1
	V-5403-Q	QUART RED PAINT	1
4	V-9524-Q	QUART BLACK PAINT	1
5	V-5403-G	GALLON RED PAINT	1
	V-9524-G	GALLON BLACK PAINT	1

NOTE: Warning decals are available at no charge. If they become damaged or missing, order part numbers DE-WWS, DE-WWWS, DE-PP, DE-QCC.

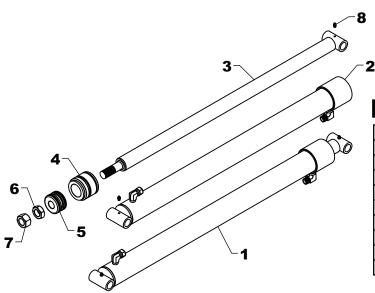
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WL-21 LIFT CYLINDER REPLACEMENT PARTS

REF#	PART#	DESCRIPTION	QTY.
1	L-9	LIFT CYLINDER	1
2	L-901	BARREL	1
3	L-910	RAM	1
4	G-B	GLAND	1
5	P-A	PISTON	1
6	HFN1614	1" NUT	1
7	HJN1614	1" JAM NUT	1
8	ZER1805	GREASE FITTING	2
9	L-819AS	PORT	1
10	#5CK	REPAIR KIT	*

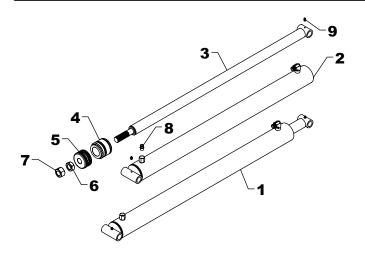
NOTE: * Repair kit contains parts to repair one cylinder



WL-27 LIFT CYLINDER REPLACEMENT PARTS

REF#	PART#	DESCRIPTION	QTY.
1	L-35	LIFT CYLINDER	1
2	L-3501	BARREL	1
3	L-3510	RAM	1
4	G-B	GLAND	1
5	P-A	PISTON	1
6	HJN1614	1" JAM NUT	1
7	HFN1614	1" NUT	1
8	ZER1805	GREASE FITTING	2
9	#5CK	REPAIR KIT *	*

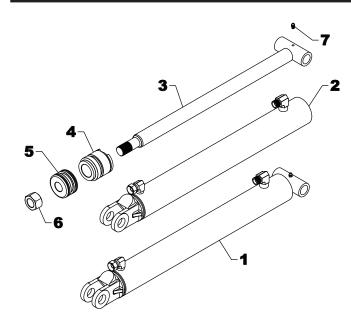
NOTE: * Repair kit contains parts to repair one cylinder



WL-42 LIFT CYLINDER REPLACEMENT PARTS

REF#	PART#	DESCRIPTION	QTY.
1	L-10	LIFT CYLINDER	1
2	L-1001	BARREL	1
3	L-1010	RAM	1
4	G-B	GLAND	1
5	P-B	PISTON	1
6	HJN1614	1" JAM NUT	1
7	HFN1614	1" NUT	1
8	L-819AS	PORT	1
9	ZER1805	GREASE FITTING	2
10	#4CK	REPAIR KIT	*

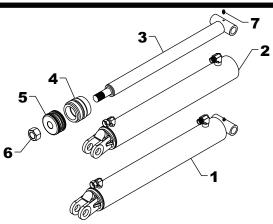
NOTE: * Repair kit contains parts to repair one cylinder



WL-21 / WL-27 / WL-42 BUCKET CYLINDER REPLACEMENT PARTS

REF#	PART#	DESCRIPTION	QTY.	
1	B-1	BUCKET CYLINDER	1	
2	B-101	BARREL	1	
3	B-110	RAM	1	
4	G-A	GLAND	1	
5	P-A	PISTON	1	
6	HFN1614	1" NUT	1	
7	ZER1805	GREASE FITTING	1	
8	#1CK	REPAIR KIT	*	

NOTE: * Repair kit contains parts to repair one cylinder



WL-42 OPTIONAL 3" BUCKET CYLINDER REPLACEMENT PARTS

REF#	PART#	DESCRIPTION	QTY.
1	B-4	BUCKET CYLINDER	1
2	B-401	BARREL	1
3	B-410	RAM	1
4	G-E	GLAND	1
5	P-B	PISTON	1
6	HFN1614	1" NUT	1
7	ZER1805	GREASE FITTING	1
8	#4CK	REPAIR KIT	*

NOTE: * Repair kit contains parts to repair one cylinder

STEPS TO REPAIR CYLINDER

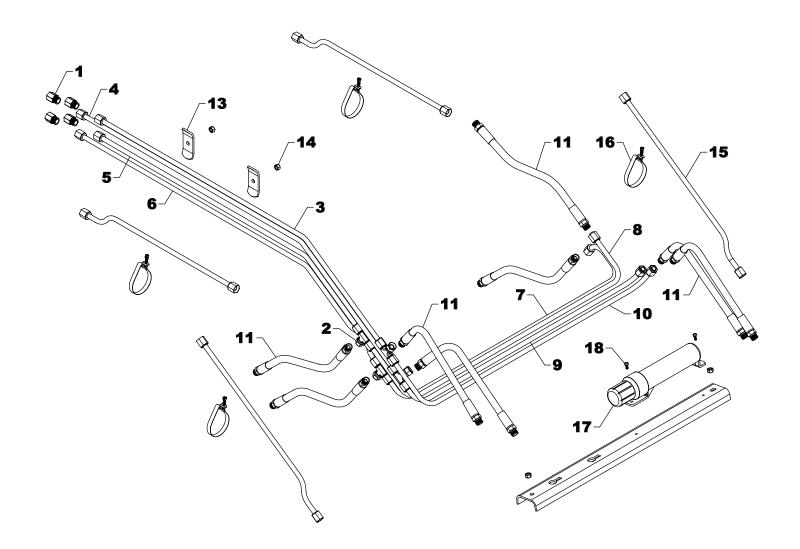
- 1) Extend the ram out as far as possible.
- 2) At the ram end of the cylinder barrel you will find a snap ring located either on the face or inside the notch of the gland.
- 3) Locate the snap ring eyes (you may need to turn the gland inside the barrel to find the snap ring eyes). Compress the snap ring with snap ring pliers.
- 4) Remove the ram assembly (ram, gland, & piston) from barrel.
- 5) Notice the direction they're pointing so they can be properly re-assembled.
- 6) Remove the jam nut and/or hex nut from the end of the ram.

- 7) Remove the old seals and rings and replace them with the new seals and rings. (Seal kits are packaged for several different cylinders. You may have extra parts)
- 8) Clean cylinder with cleaner and a clean lint free cloth.
- 9) Lubricate the seals and rings to aid assembly.
- **10)** Assemble the cylinder by reversing the order.

CYLINDER REPAIR TIPS

- When disassembling cylinders, keep the parts in correct orientation. Remove parts in sequence.
- Note the direction of the piston and gland. Lay out old seals and parts as they are removed.
- Assemble cylinder in proper order; lubricate to aid assembly.

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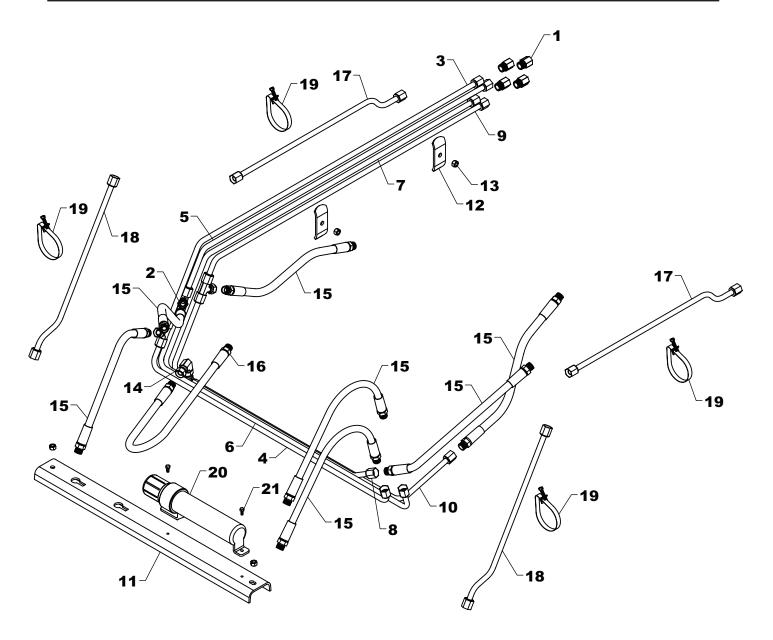


WL-21 HYDRAULIC REPLACEMENT PARTS

REF#	PART#	DESCRIPTION	QTY.
1	PF-FFC8	FEMALE CONNECTOR	4
2	PF-FSBT8	SWIVEL NUT TEE	4
3	OLT-4	OIL LINE	1
4	OLT-5	OIL LINE	1
5	OLT-6	OIL LINE	1
6	OLT-7	OIL LINE	1
7	OLT-8	OIL LINE	1
8	OLT-9	OIL LINE	1
9	OLT-10	OIL LINE	1

REF#	PART#	DESCRIPTION	QTY.
10	OLT-11	OIL LINE	1
11	H06020-FF	3/8" X 20" HOSE	8
12	OH-2	OIL LINE PROTECTOR	1
13	OH-3	OIL LINE HOLDER	2
14	HTN0616	3/8" LOCK NUT	4
15	OLT-1	OIL LINE	4
16	BAND-12	OIL LINE HOLDER	4
17	GP-2	MANUAL CANISTER	1
18	EC-M03	SELF TAPPING SCREW	2

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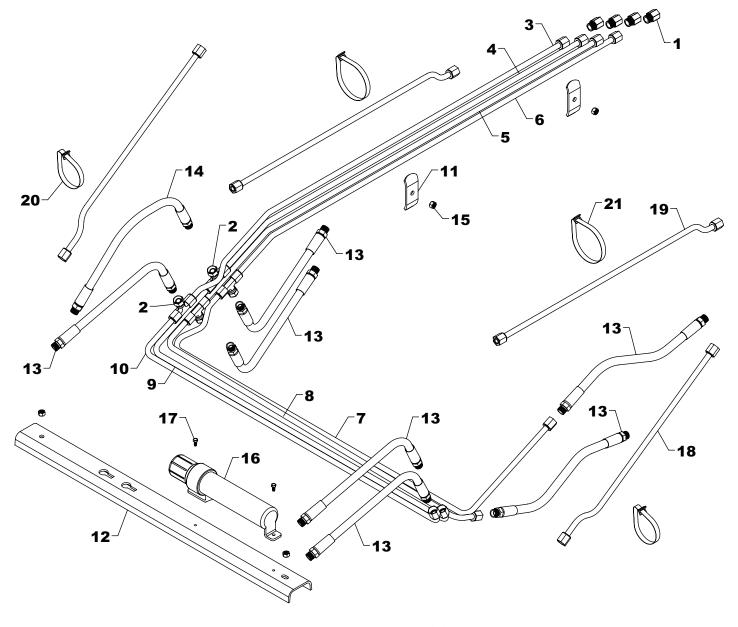


WL-27 HYDRAULICS

REF#	PART#	DESCRIPTION	QTY.
1	PF-FFC8	FEMALE CONNECTOR	4
2	PF-FSBT8	SWIVEL NUT TEE	4
3	OLT-460	OIL LINE	1
4	OLT-461	OIL LINE	1
5	OLT-462	OIL LINE	1
6	OLT-463	OIL LINE	1
7	OLT-464	OIL LINE	1
8	OLT-465	OIL LINE	1
9	OLT-466	OIL LINE	1
10	OLT-467	OIL LINE	1
11	OH-2	OIL LINE PROTECTOR	1

REF#	PART#	DESCRIPTION	QTY.
12	OH-3	OIL LINE HOLDER	2
13	HFN0616	3/8" NUT	4
14	PF-FSE8	90° SWIVEL NUT ELBOW	1
15	H06020-FF	3/8" X 20" HOSE	7
16	H06030-FF	3/8" X 30" HOSE	1
17	OLT-1	OIL LINE	2
18	OLT-143	OIL LINE	2
19	BAND-12	METAL BAND	4
20	GP-2	MANUAL CANISTER	1
21	EC-M03	SELF TAPPING SCREW	2

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WL-42 HYDRAULICS

REF#	PART#	DESCRIPTION	QTY.
1	PF-FFC8	FEMALE CONNECTOR	4
2	PF-FSBT8	SWIVEL NUT TEE	4
3	OLT-32	OIL LINE	1
4	OLT-33	OIL LINE	1
5	OLT-34	OIL LINE	1
6	OLT-35	OIL LINE	1
7	OLT-36	OIL LINE	1
8	OLT-37	OIL LINE	1
9	OLT-38	OIL LINE	1
10	OLT-39	OIL LINE	1
11	OH-3	OIL LINE HOLDER	2

REF#	PART#	DESCRIPTION	QTY.
12	OH-1	OIL LINE PROTECTOR	1
13	H06020-FF	3/8" X 20" HOSE	7
14	H06030-FF	3/8" X 30" HOSE	1
15	HTN0616	3/8" LOCK NUT	4
16	GP-2	MANUAL CANISTER	1
17	EC-M03	SELF TAPPING SCREW	2
18	OLT-1	OIL LINE	2
19	OLT-2	OIL LINE	2
20	BAND-12	METAL BAND	2
21	BAND-15	METAL BAND	2

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Operational Troubleshooting

NOTE The Troubleshooting portion of this manual is divided into three parts: Operational, Hardware Damage, and Hydraulic System Troubleshooting. All items might not apply to the loader installed on your tractor.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Cannot raise or lower loader	Hydraulic circuit not complete	Check all hose connections.
	Hoses not fully connected or connected in wrong location	Connect hoses properly.
	Unmatched or defective couplers	Repair or replace the couplers.
	Signal line damaged (auxiliary hydraulic system)	Repair or replace (remove suction hose).
Cannot lift load	Low oil supply	Check the oil level.
	Low oil pressure	Check oil pressure at tractor valve. If oil pressure is low, see "Symptom: Low Hydraulic Oil Pressure" in "Hydraulic System Troubleshooting".
	Worn lift cylinders	Test lift cylinders Raise the loader 6-8 feet above the ground Disconnect hydraulic at couplers. If loader settles, there's an internal leak. Install seal repair kit.
	Hydraulic pump malfunction	Repair or replace hydraulic pump.
	Excessive load	Reduce the load.
Slow operation	Low oil supply	Check the oil level.
	Oil viscosity too heavy	Replace with proper viscosity oil.
	Plugged oil filter	Clean or replace the oil filter.
	Hydraulic pump malfunction	Repair or replace hydraulic pump.
	Air in hydraulic system	Locate and repair the leak. Cycle all cylinders several times to free the system of air.
	Cylinder leaking internally	Install seal repair kit.
	Faulty valve	Repair or replace the signal line.
	Slow engine speed	Increase the engine speed.
	Hydraulic couplers not connected	Check the hydraulic couplers.
Loader movement not consistent with control lever movement	Cable adjustment	Correct adjustment.

Operational Troubleshooting - continued			
SYMPTOM	POSSIBLE CAUSE	SOLUTION	
Loader jerks, chatters, or vibrates when raising or lowering	Air in hydraulic system	Locate and repair the leak. Cycle all cylinders several times to free the system of air.	
	Low oil supply	Check the oil level.	
	Plugged oil filter	Clean or replace the oil filter.	
	Hydraulic pump malfunction	Repair or replace the hydraulic pump.	
	Auxiliary valve lines not connected	Check manual.	
Loader slowly leaks down	External oil leaks	Tighten loose fittings. Apply thread sealer on pipe threads.	
	Internal cylinder leaks	Test lift cylinders Raise the loader 6-8 feet above the ground Disconnect hydraulics at tractor. If loader settles, there is an internal leak. Install a seal repair kit.	
	Worn control valve	Repair or replace control valve.	
	Damaged O-rings	Replace O-rings.	
	Valve cables not adjusted properly	Adjust cables.	
Loss of bucket tilt control when lever is pushed completely forward.	Control lever in "float" position	Use "float" lockout to keep control lever out of the "float" position.	
lorward.	Float on lift spool only	Check correct connection.	
Loader bucket not level	Rear tires not equally inflated	Inflate all tires to the correct pressure.	
side-to-side	Mtg. brackets not level side-to-side	Adjust the mounting brackets.	
	Bucket mounts are damaged	Repair the bucket mounting attachment.	
Loader contacts tie rods	Axle stops are not installed	Install the axle stops.	
	Tires are not set out "equally"	Move the tires out to their recommended settings.	

Self-Leveling Troubleshooting

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Hydraulic squeel from relief valve	Bucket fully dumped and trying to raise loader causing relief valve to bypass which causes squeal	Extend bucket cylinders positioning bucket forward, out of dump position.
Hydraulic fluid is hot	Forcing oil through relief valve by operating loader with bucket fully dumped	Extend bucket cylinders positioning bucket so relief valve does not bypass.
Damaged Self-Leveling Linkage	Back-dragging in the danger zone, past 40°	Repair and review operation section on self-leveling.
	Raising bucket when completely dumped	Repair and review operation section on self-leveling.
	Self-leveling relief valve is not operating correctly	Replace.

Hydraulic System Troubleshooting			
SYMPTOM	POSSIBLE CAUSE	SOLUTION	
Hydraulic cylinders inoperative	Control valve hose improperly connected.	Connect control valve hose properly.	
Oil pressure is low	Relief valve is set to low	Adjust the setting.	
	Defective relief valve	Repair or replace.	
	Relief valve spring is broken	Replace and adjust.	
Oil leaks	Loose hose connections	Tighten fittings. Use thread sealer on pipe fittings.	
	Defective fittings or hoses	Replace defective fittings and hoses.	
	Worn cylinder seals	Install a seal repair kit.	
	Worn valve components	Repair or replace the valve.	
	Damaged O-rings	Replace O-rings.	
Oil is too hot	Pump is worn and working hard	Repair or replace.	
	Constant bypass on valve	Release handle to neutral when valve bypasses.	
	Exceeding lift capacity	Reduce work load.	
	Dirty oil filter	Replace oil filter.	
	Auxiliary system oil tank too small to allow cooling	Replace with larger tank.	
	Oil tank covered with oil and dirt	Clean off tank.	
	Oil tank breather hole is closed	Clean or open breather.	
Oil foaming	Air leak in hydraulic system	Locate and repair the leak. Cycle all cylinders several times to free the system of air.	
	Low oil supply	Check oil level.	

Hardware Damage Troubleshooting

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Excessive wear on bucket cutting edge and wear pads	Bucket tilted too far forward	Use the rotational level indicator to keep bottom of bucket parallel with the ground.
	Bucket not following contour of ground or excessive down pressure when working on concrete	Use "float" position on control lever to follow the contour.
Mounting brackets and holes do not line up	Variation in different tractor models	Bolt all brackets on loose, then tighten them.
	Variation in tractor frames	Contact Westendorf Mfg. BEFORE altering brackets.
	Brackets may be on wrong side	Try brackets on other side.
Bent lift cylinder ram	Load carried too high Excessive shock on the rams	Contact your local dealer or Westendorf for cylinder replacement. Review "Operation" section of manual.
Bent bucket cylinder ram	Dozing or back dragging beyond recommended limit	Contact your local dealer or Westendorf for cylinder replacement. Review "Operation" section of manual.

SECTION 6: STORAGE

Preparation for Storage

- Replace damaged or missing parts including hoses, pins, hardware and decals.
- Clean the loader thoroughly. Dirt attracts moisture which causes rust.
- Coat exposed cylinder rams with a thin film of oil to protect them from rust. Protect exposed rams from scratches and nicks.
- Paint the loader or attachment when needed.
- Lubricate all grease fittings.

Storing the Loader

AWARNING CRUSHING HAZARD.

Prevent loader from tipping by dismounting loader with approved bucket on firm surface. Detach loader on a level surface. Keep children and bystanders away from the storage area.

- Store the loader inside, if possible, on a solid, level surface. If the loader must be stored outside, cover it with waterproof material.
- Drape the hydraulic hoses over the loader to keep them clean and off the ground.

Storing Attachments

AWARNING CRUSHING HAZARD.

Attachments may fall over if stored on an unlevel or a soft surface, causing serious injury or death. Secure attachments to prevent them from falling. Protect against injuries from sharp points or edges on attachments. Keep children and bystanders away from the storage area.

- Store attachments inside, if possible, on a solid, level surface.
- Store tools with sharp points or edges (bale spears, tine buckets, etc.) against a bale, building, or other stationery object.
- Keep tines and spears pointed down.

WESTENDORF



Exclusive Patented Features:

- Power-Mount™ Mount & dismount loader hydraulically in One Step without tools or dangerous stands.
- Snap-Attach™ The original quick change system that automatically locks attachments in place.
- Hydra-Snap™ a single lever manifold that couples all the hoses in one smooth motion.
- Uni-Fit[™] Brackets- Custom adjust the loader to fit your tractor for low-profile fit and smooth operation.

Your One Stop Shop For Material Handling Solutions

- Loaders
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- Tine Bucket
- Fork Bucket
- Ouick-Mount Grab Forks
- Cat Claw 3D Grab Forks
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- Bale Handler
- Brush Crushers™
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- Forklifts
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- Anhydrous Wagon™
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