



Dozer Blade

For

Skid Steer Loaders

Operator's Manual
Set-Up Assembly
Maintenance
Parts Information



Read this Manual Before Use

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REFERENCE INFORMATION

Write the serial number for your attachment in the spaces below. Always refer to this serial number when calling for service or parts.

Serial Number....._____

YOUR ATTACHMENT DEALER

ADDRESS: _____

PHONE: _____

CONTACT: _____

NOTE: *Erskine Attachments LLC reserves the right to make improvements in design or changes in specifications at any time without notice and without incurring any obligations to install them on units previously sold.*

SAFETY

DO NOT use or perform maintenance on this machine until this manual has been read and understood. In addition, read the Operation and Maintenance Manual(s) pertaining to the attachment and the attachment carrier (“Loader”).

The user is responsible for inspecting the machine daily, and for having parts repaired or replaced when continued use of the machine would cause damage, excessive wear to other parts or make the machine unsafe for continued operation.

If an operating procedure, tool device, maintenance or work method not specifically recommended is used, you must satisfy yourself that it is safe for you and others. You must also ensure that the attachment will not be damaged or made unsafe by the procedures you choose.

Erskine Attachments LLC cannot anticipate every possible circumstance that might involve potential hazard. The safety messages found in this manual and on the machine are therefore not all inclusive.

Throughout this manual, reference may be made to the left hand (LH) and right hand (RH) side. These terms are used as viewed from the operator’s seat facing front.

The signal words **CAUTION**, **WARNING**, or **DANGER** are used to indicate hazards.

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

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

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

The word **IMPORTANT** is used in the text when immediate damage will occur due to improper technique or operation.

The word **NOTE** is used to convey information that is out of context with the manual text; special information such as specifications, techniques, reference information, and other information of a supplementary nature.

Improper operation can cause serious injury or death.

Pre-operation

- This machine is designed to backfill, grade and level dirt, sand, and other materials. The dozer blade can be used with or without the optional wheel kit and wing kit. **NEVER** use this machine for any other purpose.
- The dozer blade is not designed to be used on skid steer loaders with more than 5,000 lbs. of pushing force.
- Read the operator's manual for the "Skid Steer Loader." **NEVER** allow untrained people to operate.
- Operating instructions must be given to everyone before operating this attachment and at least once a year thereafter in accordance with OSHA regulations.
- **NEVER** exceed the maximum recommended input power or speed specifications for the attachment. Over-powering or over-speeding the attachment may cause personal injury and/or machine damage.
- Keep all shields, guards, and covers in place.
- Do not modify equipment or add attachments that are not approved by Erskine Attachments LLC.
- Use adequate safety warning lights and devices as required by local regulations. Obey all local laws and regulations regarding machine operation on public property.

Operation

- Hydraulic connections may be hot after use. Use gloves if connecting or disconnecting after use.
- Check and be sure all operating controls are in neutral before starting the engine.

Operation (continued)

- Keep people away from loader and attachment when in use. This attachment has moving parts.
- **NEVER** operate near embankments or terrain that is so steep that rollover could occur.
- Always stay in the operator position when using the attachment.
- Before leaving the operators position, lower the attachment to rest flat on the ground, stop engine, relieve hydraulic pressure to the attachment, set park brake, and wait for all motion to stop.
- **NEVER** place hands near moving parts or clear debris while engine is running.

Avoid High Pressure Fluids Hazard



- Escaping fluid under pressure can penetrate the skin causing serious injury.
- Avoid the hazard by relieving the pressure before disconnecting hydraulic lines.
- Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks. Wear protective gloves and safety glasses or goggles when servicing or performing maintenance on hydraulic systems.
- If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.

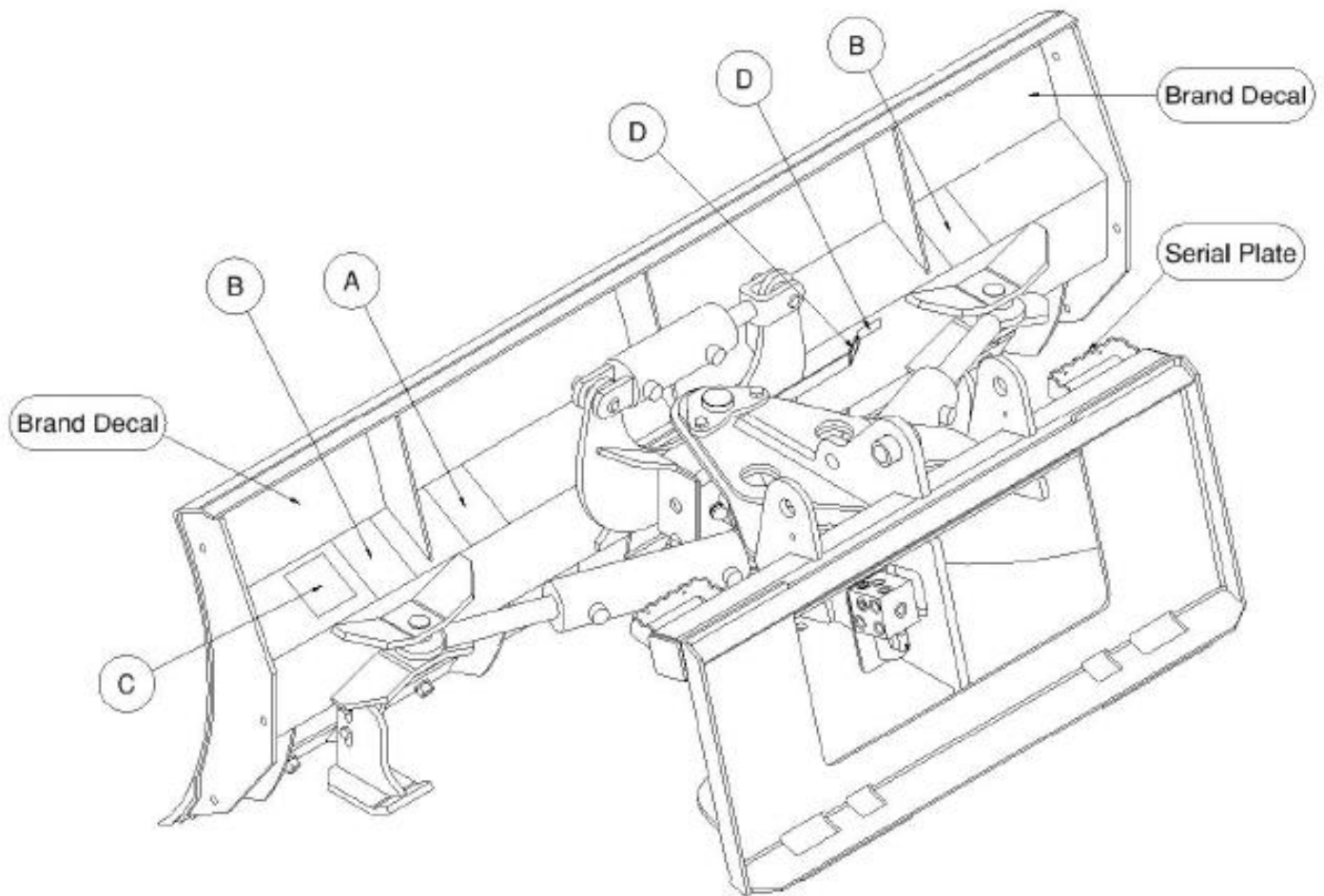
Maintenance

- **NEVER** make adjustments, lubricate, clean, or perform any service on the machine while it is in operation.
- Make sure the attachment is serviced on a daily basis. Improper maintenance can cause serious injury or death in addition to damage to the attachment and/or your equipment.

SERIAL NUMBER AND SAFETY DECAL LOCATIONS

Serial Number Location:

It is important to refer to the serial number of the attachment when making repairs or ordering parts. Early or later models (identification made by serial number) may use different parts, or it may be necessary to use different procedures in doing a specific operation.



SERIAL NUMBER AND SAFETY DECAL LOCATIONS



Part number: 200001

Location: On back left side of moldboard

Quantity: 1

Small Brand Decal

Location: On each endplate

Quantity: 2



Part number: 203234

Location: On back of moldboard, both sides

Quantity: 2



Part number: 317113

Location: On subframe tilt angle pointer

Quantity: 2

Safety Decals Locations:

The locations of the safety decals are shown. If these decals are missing, damaged, or painted over they must be replaced. Call Erskine Attachments LLC (218-435-4045) for replacement decals.

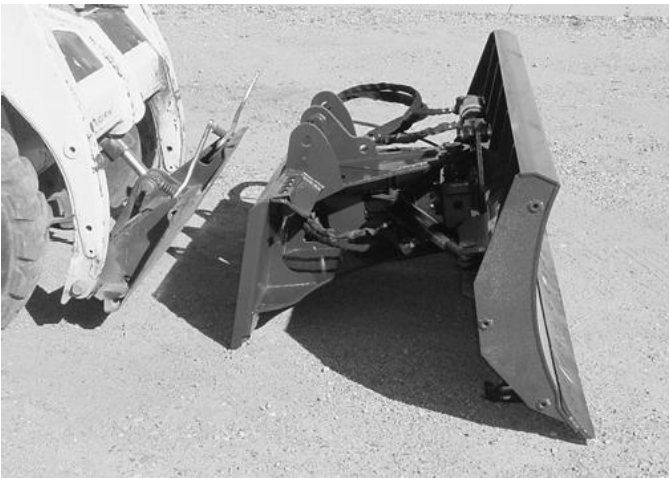
USER'S MOUNTING INSTRUCTIONS

After the initial set-up assembly is completed, use the following procedure to mount the attachment to the loader.

⚠ WARNING Coupler wedges or pins must extend through holes in attachment. Levers must be fully down and locked. Failure to secure wedges or pins can allow the attachment to come off and cause injury or death.

1. Use the step, safety treads, and grab handles to get on and off the loader and attachment.

2. Sitting in the operator's seat, lower seat bar (if so equipped) and fasten the seat belt.



3. Drive the loader to the rear of the attachment. Put the loader quick attach coupler into the attachment mounting bracket.

4. Tilt the loader coupler backward a small amount until it is fully engaged in the attachment mounting bracket.

5. Stop the engine and engage the park brake.

6. Secure the coupler locking mechanism that attaches the attachment to the loader.



USER'S MOUNTING INSTRUCTIONS

7. Connect the hydraulic quick couplers from the attachment to the loader.

IMPORTANT: Wipe the ends of the hydraulic quick couplers (both lead and loader) with a rag to remove any possible contamination. Contamination can cause hydraulic components to fail and is not covered under warranty.

IMPORTANT: Make sure the quick couplers are fully engaged. If the quick couplers do not fully engage, check to see that the couplers are the same size and brand. Do not force the quick couplers together.

NOTE: See the loader's operator's manual for auxiliary hydraulic specifications and connection instructions.

NOTE: Attachment is shipped with 8FJX (1/2" Female JIC Swivel) fittings on the ends of the lead hoses.

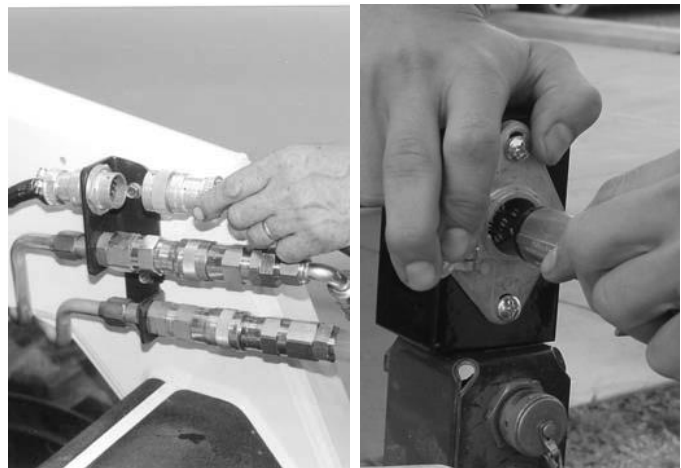
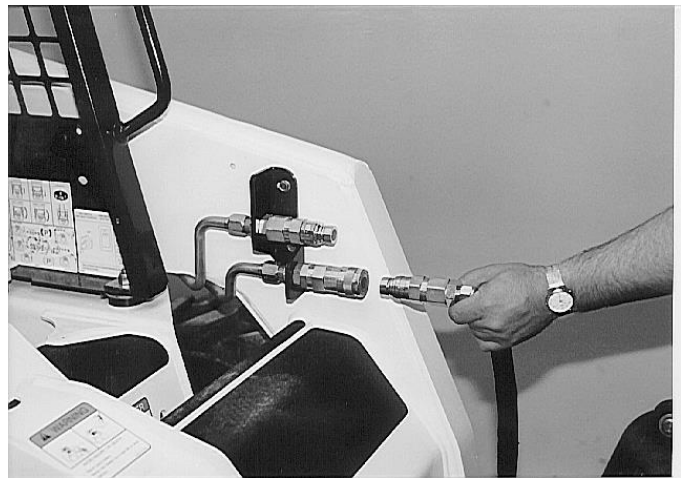
8. Connect the attachment wire harness to the loader's wire harness receptacle. (Disregard if pistol grip controller is supplied with the attachment.)

9. Make sure the hoses are properly routed to fit your specific loader. If the hoses are not routed correctly, hoses may get pinched or rub on tires. Be sure to check the hose routing through the full range of intended motion of the attachment before operating it.

More than one routing may be acceptable depending on the loader. Pick the routing that best suits your loader.

IMPORTANT: Proper hose routing is the responsibility of the owner and/or operator. Pinched or stretched hoses are not covered under warranty.

Mounting is now complete and the attachment is ready for operation. Use reverse order of above instructions to dismount the attachment from the loader.



OPERATING INSTRUCTIONS



IMPORTANT: The dozer blade is not designed for snow removal.

NOTE: For maximum control, the dozer blade should be operated with the loader arms fully lowered.

1. With the operator in the seat of the loader, the seat belt fastened, and the seat bar lowered (if so equipped), start the engine.

2. With the loader lift arms fully lowered, tilt the attachment forward to rest on the skid shoes and/or cutting edge, depending on the application.

NOTE: The dozer blade skid shoes provide stability. For proper operation of the attachment, the skid shoes should be adjusted so that the bottom of the skid shoes are even with the bottom of the cutting edge (see page 16 in the “Routine Maintenance” section of this manual).

3. Activate the loader’s auxiliary hydraulics to operate the dozer blade tilt and angle functions.

4. The dozer blade is equipped with a diverter valve to switch the oil flow between the tilt and angle functions. When the loader’s auxiliary hydraulics are activated, the primary (default) function is the dozer blade tilt (up and down).

OPERATING INSTRUCTIONS

- To operate the dozer blade's angle (left and right) function, energize the diverter valve coil by pressing and holding the appropriate steering lever button (see loader's operator's manual) if the loader is equipped with an attachment control kit, or by pressing and holding button 3 on the pistol grip controller if the attachment was shipped with the pistol grip harness. While holding the button, activate the loader's auxiliary hydraulics to angle the attachment left and right. Release the button to return to the tilt function.

NOTE: If the dozer blade does not angle, experiment with another button until the button that energizes the diverter is found. If no button can be found, use a 12V test light to identify the correct button and confirm that power is reaching the coil.

NOTE: Certain loaders will require either a K to L jumper wire, or a P to K jumper wire be installed in the 14-pin harness. These jumper wires can be found on the 14-pin end of the attachment harness. The color code is as follows:

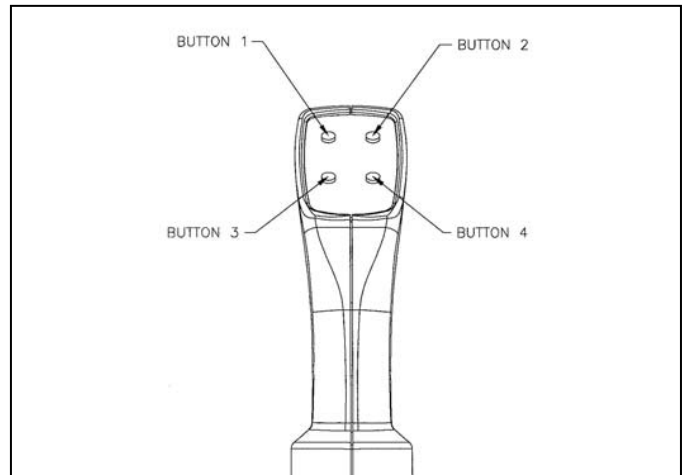
Connector	Pin
Gray Wire Female	K
Gray Wire Male	L
Purple Wire	P
Yellow Wire	A (JD® Ground, etc.)
Blue Wire	B (Bobcat® Ground)
Black Wire	Connector Ground

NOTE: To switch the default function from tilt to angle, there are three plugs on the valve block that must be switched with three hoses as follows:

- T1 & T2 swap location of plug and hose
- L1 & L2 swap location of plug and hose
- R1 & R2 swap location of plug and hose



PUSH AND HOLD TO ENERGIZE DIVERTER



**PUSH AND HOLD TO ENERGIZE DIVERTER
(OPTIONAL PISTOL GRIP HARNESS SHOWN)**

OPERATING INSTRUCTIONS



6. Once the operator is familiar with the attachment's controls, fully lower the loader's lift arms and position the attachment so that it rests on the skid shoes and/or cutting edge, depending on the application.
7. Slowly drive the loader forward.
8. Use the mounting plate tilt function along with the dozer blade tilt and angle functions to obtain the desired grade and to increase the loader's traction.
9. Use the position indicator on the back of the dozer blade as a reference while adjusting the approximate tilt (up and down) angle of the attachment.



Leveling the Ground

1. Fully lower the loader's lift arms.
2. Angle the dozer blade to the desired position.
3. Use the loader's mounting plate tilt function to change the position of the dozer blade cutting edge while driving forward to level the ground.



Digging into a Slope

1. Fully lower the loader's lift arms.
2. Angle the dozer blade to the desired position.
3. Use the loader's mounting plate tilt function along with the dozer blade's tilt and angle functions to obtain the desired grade angle, keep an even dozing depth, and to increase the loader's traction while driving forward to cut a slope.

OPERATING INSTRUCTIONS

Using the Optional Wheel Kit

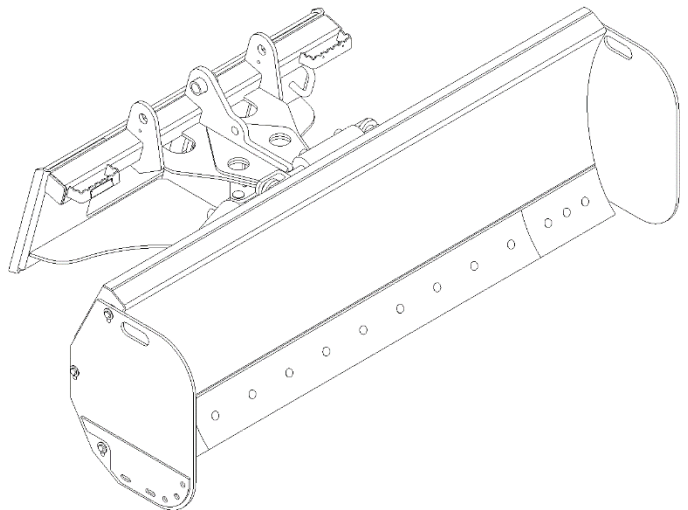
1. Fully lower the loader's lift arms.
2. Angle the dozer blade to the desired position.
3. Use the loader's mounting plate tilt function along with the dozer blade's tilt and angle functions to obtain the desired grade angle and depth. Tilt the dozer blade away from the loader to transfer weight from the loader's front axle to the dozer wheels. Continue tilting until the dozer blade cutting edge rises to the desired cutting depth.

NOTE: When transporting from one location to another, tilt the mounting plate toward the loader to lift the dozer blade and wheel kit off of the ground.



Optional Wing Kit

The optional wing kit can be installed on the dozer blade to add the features of a box blade during operation.







ROUTINE MAINTENANCE

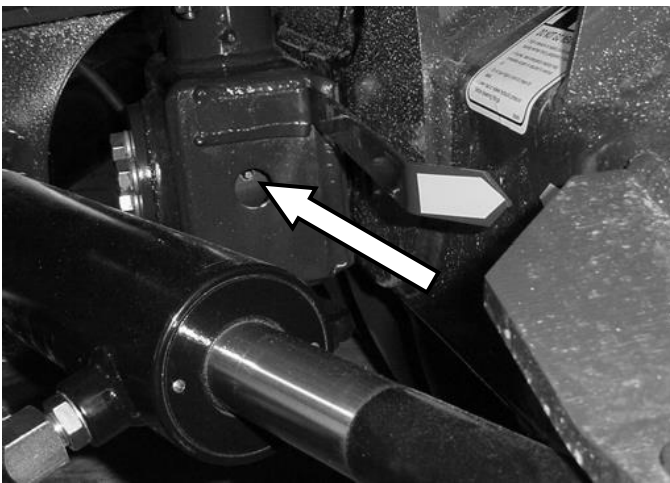
⚠ WARNING Lower the attachment to rest flat on the ground, shut down the engine, relieve the hydraulic pressure to the attachment, set the park brake, and wait for all motion to stop before leaving the operator's seat to perform service of any kind.

It is the operator's responsibility to make daily inspections of the loader and attachment for damage, loose bolts, fluid leaks, or anything else that could cause a potential service or safety problem. Preventive maintenance is the easiest and least expensive type of maintenance.



IMPORTANT: Bolts can loosen after initial usage. After the first hour of operation check all bolts.

LUBRICATION

Lubrication Legend	 Multipurpose spray lube	 No. 2 Lithium base gun grease	 Clean engine oil	 Intervals at which lubrication is required
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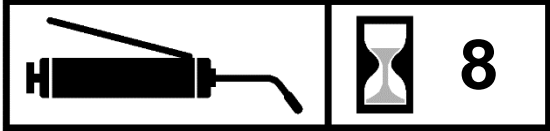
Use No. 2 lithium base gun grease when lubricating all attachment grease fittings.

	
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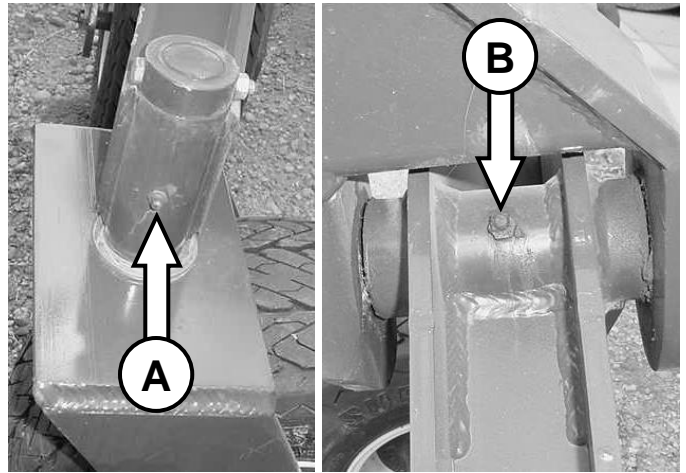
Grease the center pivot pin on each side every **8 hours** of operation.

ROUTINE MAINTENANCE

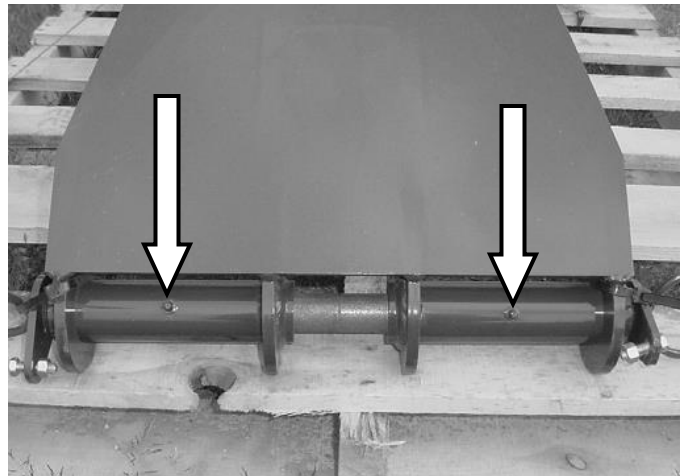
Optional Wheel Kit Maintenance



Grease both caster wheel pins **[A]** and the main caster swivel pin **[B]** every **8 hours** of operation.



Grease both main pivot pins every **8 hours** of operation.



Repack each caster wheel bearing **annually**.

1. Remove each caster wheel from the frame.
2. Clean all bearing components and repack using high quality waterproof grease.
3. Reassemble all components and install a new seal.

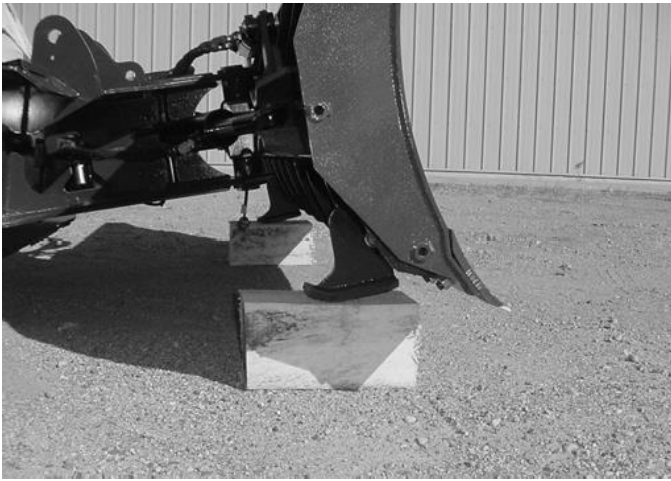


ROUTINE MAINTENANCE

Cutting Edge Replacement

NOTE: The pictures in this procedure show the replacement of the right side cutting edge. The procedure is the same for replacement of the left and center cutting edges.

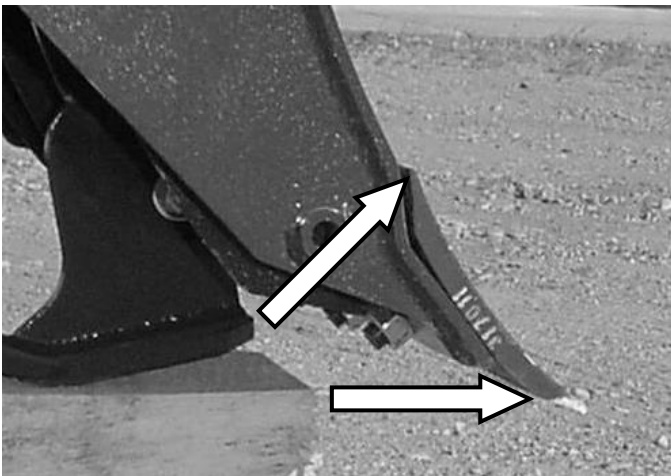
1. With the dozer blade mounted on the loader, position the attachment with the skid shoes resting on blocks as shown.



2. Remove the nuts and plow bolts from the cutting edge, and remove the cutting edge from the dozer blade.



3. The dozer blade cutting edge is a double-sided cutting edge. Once the first edge is worn, flip the cutting edge over to use the new edge. If both sides are worn, install a new replacement cutting edge.

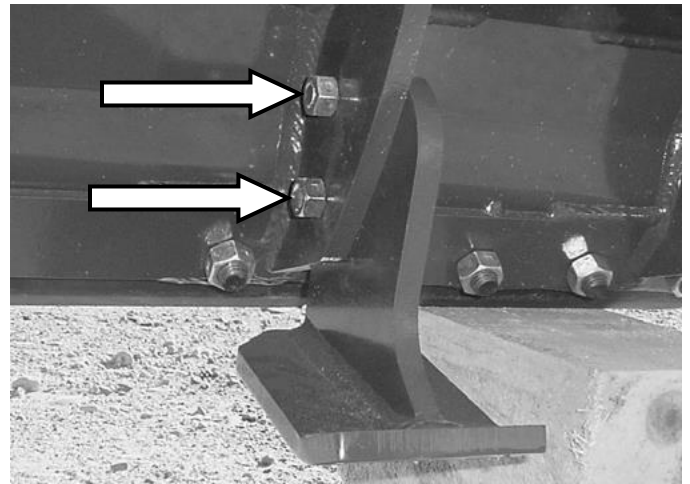
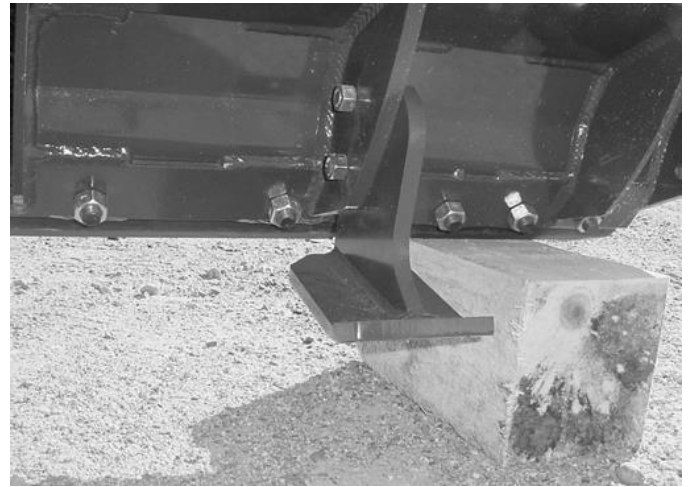


4. Reinstall the plow bolts and nuts, and torque to 125-140 ft.-lbs.

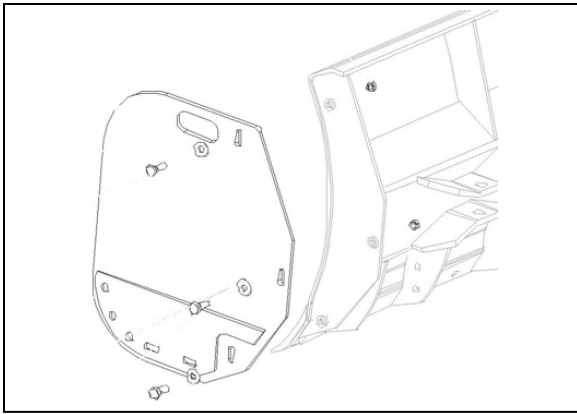
ROUTINE MAINTENANCE

Skid Shoe Adjustment

1. Position the attachment with the cutting edge resting on blocks as shown.
2. Loosen the nuts securing the skid shoes to the dozer blade.
3. Slide the skid shoes up or down until the bottom of the skid shoe is even with the bottom of the cutting edge.
4. Tighten the skid shoe nuts to 125-140 ft.-lbs. to lock the skid shoes in place.

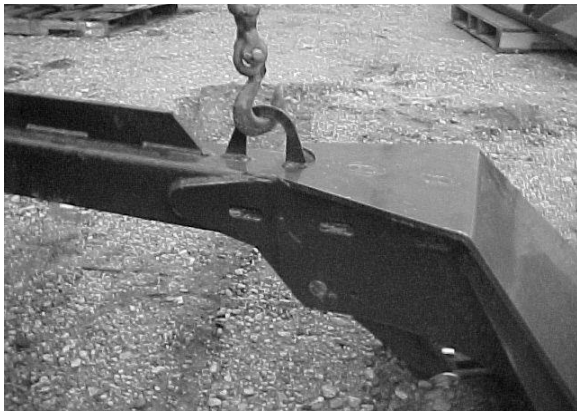


SET-UP ASSEMBLY



Wing Kit Installation

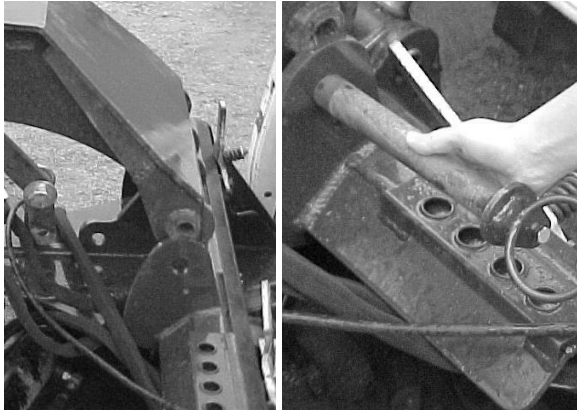
Use the provided bolts to attach the wing plates to the end ribs of the dozer blade.



Wheel Kit Installation

1. Remove the wheel kit from the pallet.

2. Using a hoist or other suitable lifting method, lift the main wheel frame by the lift eye, and carefully lower it over the dozer blade.



3. Align the main wheel frame with the two pin mounts on the dozer frame, and install the two pins (one on each side).



4. Assemble the caster frame to the main frame, and secure it in place with the pin.

5. Assemble the linkage as shown using the bolts and pins provided.

SET-UP ASSEMBLY

Wire Harness Installation

NOTE: If the loader is equipped with an attachment control package, the appropriate harness should be installed from the factory.

If the attachment was ordered with the pistol grip control harness, follow these instructions:

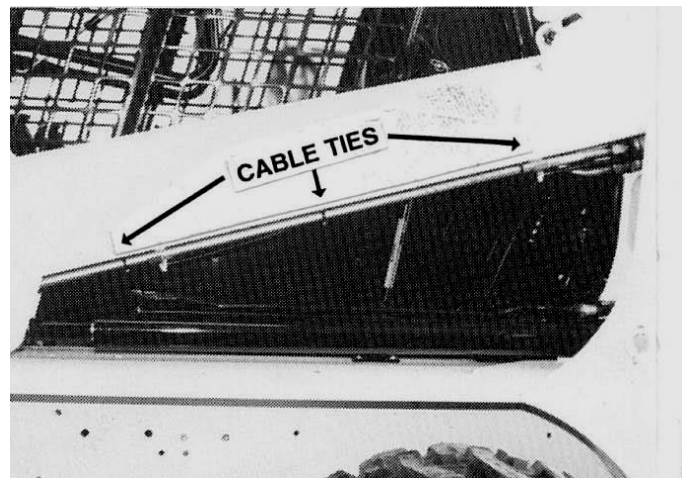
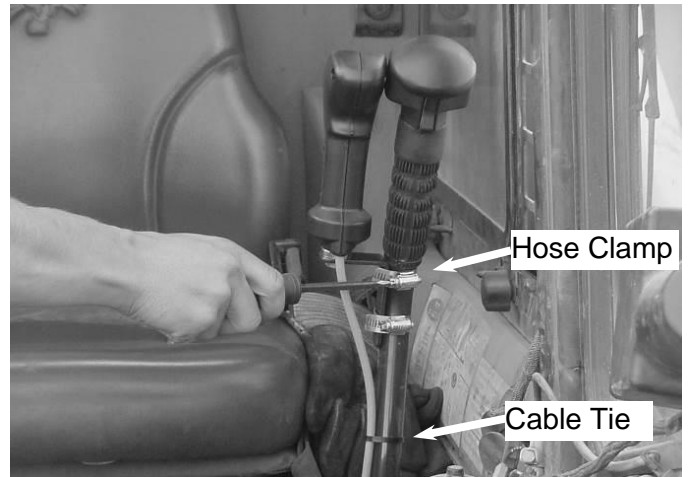
1. Install the control handle on either steering lever, whichever you prefer, with hose clamps.

NOTE: The control handle bracket can be positioned several different ways. We recommend it be positioned as shown.

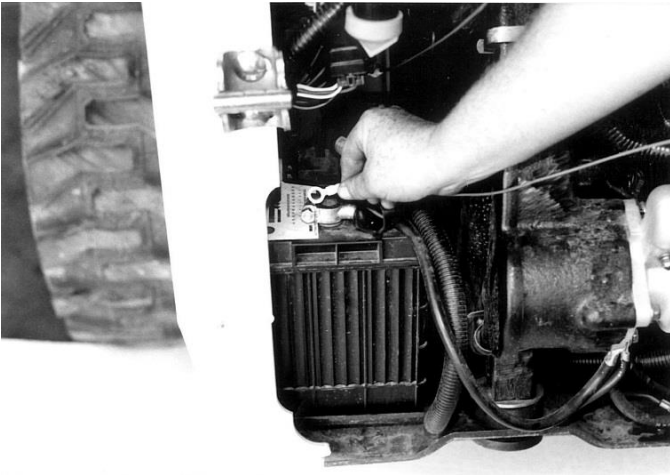
2. Put a cable tie around the wiring harness and the steering lever.
3. Install the wiring harness receptacle bracket on either the loader arm or near the hydraulic quick couplers.

NOTE: It may be necessary to make an adapter bracket in order to attach the wire harness to the loader.

4. Route the wiring harness back along the tube lines on the loader arms and fasten with cable ties.
5. Open the rear door. Pull the excess wiring harness into the engine compartment.
6. Raise the operator cab. (See loader's operator's manual for the correct procedure.)



SET-UP ASSEMBLY



7. Connect the red fused wire to the positive battery terminal or to a suitable accessory wire with a minimum rating of 5 amps. Route the wiring along the loader main frame toward the front of the loader.

Connect the black wire from the harness to a frame ground.

8. Fasten the control handle wiring harness connector to the main wiring harness connector.

IMPORTANT: Secure the wiring harness in place with plastic cable ties, making sure it is clear of extra hot areas or any moving parts on the engine or loader. Pinched, stretched, or melted wire harnesses are not covered under warranty.



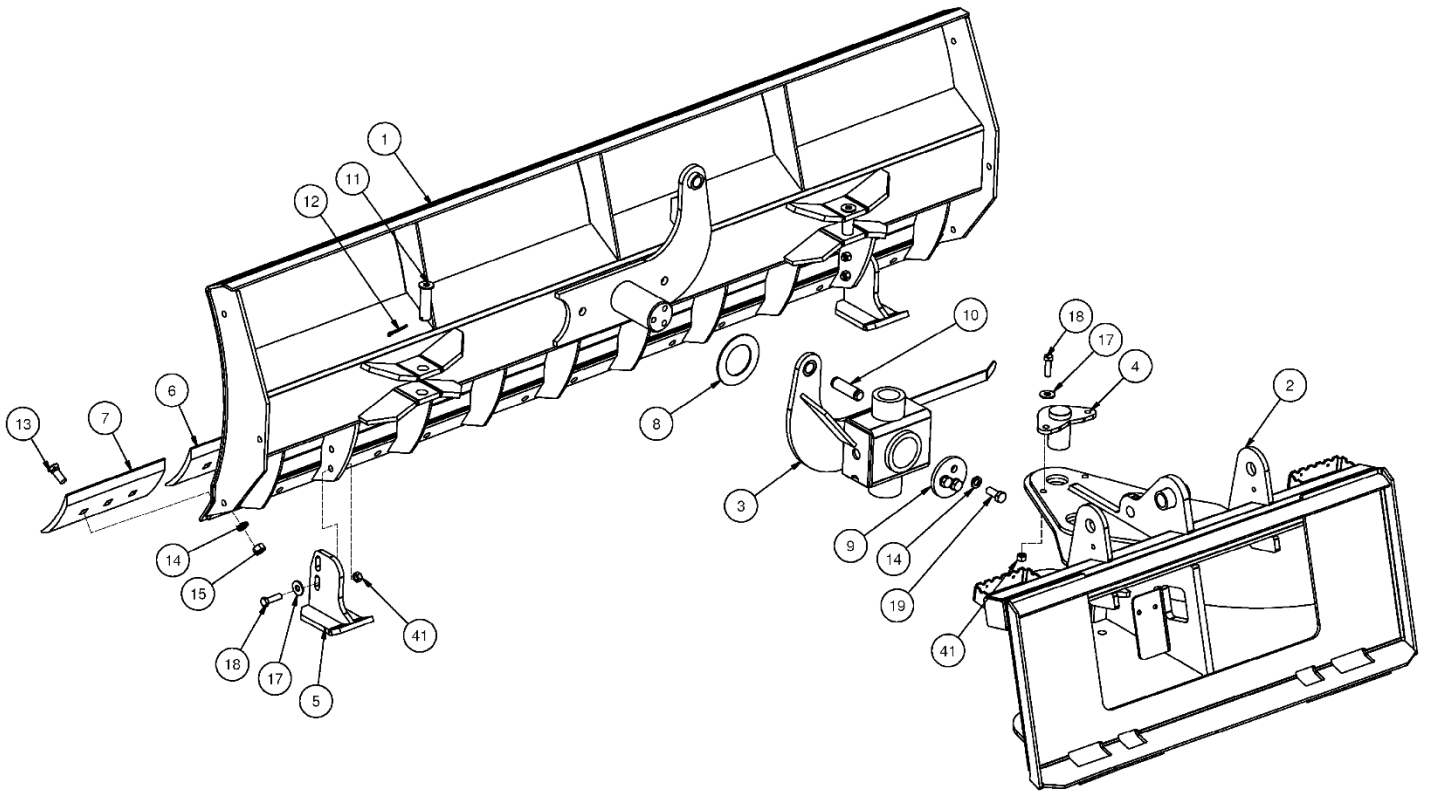
9. Lower the cab. (See loader's operator's manual for the correct procedure.)

NOTE: Be sure the control handle wiring harness is properly positioned as the cab is lowered.

PARTS INFORMATION

ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
1	1	317002	BLADE W/A 78"	
	1	317003	BLADE W/A 90"	
	1	317130	BLADE W/A 96"	
2	1	317000	MOUNT FRAME W/A	OLD STYLE
	1	317147	MOUNT FRAME 2 W/A	REPLACES 317000
3	1	317001	SUBFRAME DOZER W/A	
4	2	317067	PIN PIVOT DOZER W/A	
5	2	317073	SKID SHOE W/A	
6	1	317007	CUTTING EDGE B 1/2 X 6X54 CURV	78"
	1	317008	CUTTING EDGE B 1/2 X 6X66 CURV	90"
	1	317131	CUTTING EDGE B 1/2 X 6X72 CURV	96"
7	2	317011	CUTTING EDGE B 1/2 X 6X12 CURV	
8	1	317102	PLATE WEAR DONUT PAINTED	
9	1	317095	WASHER 3/8 X 4 PAINTED	
10	2	320127	PIN CYL 1 X 2.75 USEABLE	
	2	312058	PIN CYL ROD GREASABLE W/A	OLD STYLE ONLY
11	4	317089	PIN DOZER CYLINDER W/A	
12	4	65127	PIN COTTER 3/16 X 2	
13	15(78"),17(90"), 18(96")	22664	BOLT PLOW	5/8 X 1-3/4 NC GR5
14	18(78"),20(90"), 21(96")	33630	WASHER LOCK	5/8
15	15(78"),17(90"), 18(96")	36314	NUT HEX REG	5/8 NC
17	8	33012	WASHER FLAT	1/2
18	8	13210	BOLT HEX	1/2 X 1-3/4 NC GR 5
19	3	13309	BOLT HEX	5/8 X 1-1/2 NC GR 5
41	8	37214	NUT HEX LOCK	1/2 NC

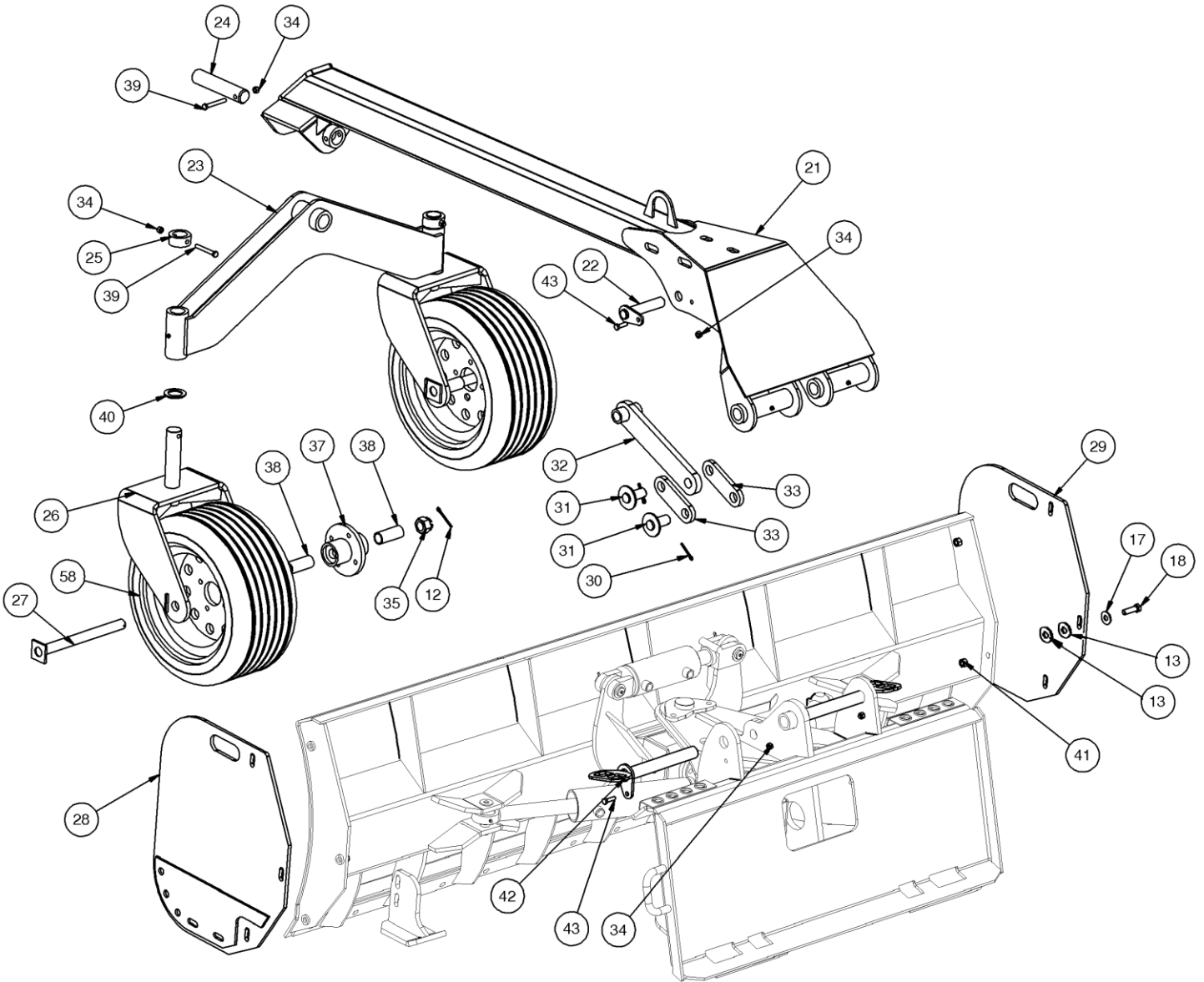
PARTS INFORMATION



PARTS INFORMATION

ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
13	12	33016	WASHER FLAT 5/8"	INCLUDED IN WING PKG
12	2	65127	PIN COTTER 3/16 X 2	
17	6	33012	WASHER FLAT 1/2	INCLUDED IN WING PKG
18	6	13210	BOLT HEX 1/2 X 1 3/4 NC GR 5	INCLUDED IN WING PKG
21	1	317048	WHEEL FRAME W/A	
22	1	316026	PIN 1 X 5 W/A	
23	1	317004	WHEEL MOUNT W/A	
24	1	318060	PIN 1.50 X 7.25 WITH HOLE	
25	2	317101	BUSHING 2.25 X 1.52 X 1.00 W/H Z	
26	2	317055	CASTER W/A	
27	2	317133	PIN WHEEL SHAFT PAINTED	
28	1	317074	DOZER WING LH W/A	INCLUDED IN WING PKG
29	1	317077	DOZER WING RH W/A	INCLUDED IN WING PKG
30	2	65105	PIN COTTER 5/32 X 1 1/2	
31	2	317117	PIN WHEEL LINK NO RING W/A	
32	1	317111	UPPER LINK PAINTED	
33	2	317110	LOWER LINK PAINTED	
34	6	37212	NUT HEX LOCK	3/8 NC
35	2	313850	NUT CASTLE 1" - 14 UNS PLATED	
37	2	317105	HUB WHEEL 4-BOLT W/ZERK	WITH BRGS/SEALS/BOLTS
	2	317136	BRG WHEEL INNER	INCLUDED WITH HUB
	2	317137	SEAL GREASE 1.215 X 1.983 DB	INCLUDED WITH HUB
	4	317138	BOLT WHEEL 1/2 X 1-3/4 UNF GR5	INCLUDED WITH HUB
38	4	317103	BUSHING 1.25 X 1.02 X 3.00 Z	
39	3	13114	BOLT HEX	3/8 X 2 3/4 NC GR 5
40	2	201325	WASHER MB 1-1/2 10GA NARROW	
41	6	37214	NUT HEX 1/2 NC	INCLUDED IN WING PKG
42	2	317092	PIN WHEEL FRAME PIVOT W/A	
43	3	13107	BOLT HEX	3/8 X 1 1/4 NC GR 5
58	2	317056	WHEEL/TIRE POLYUR 18 X 8.50-12	

PARTS INFORMATION



PARTS INFORMATION

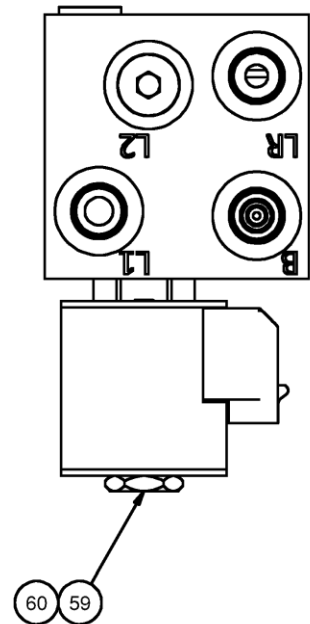
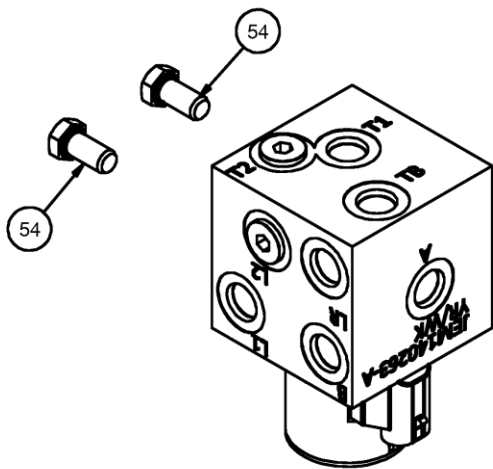
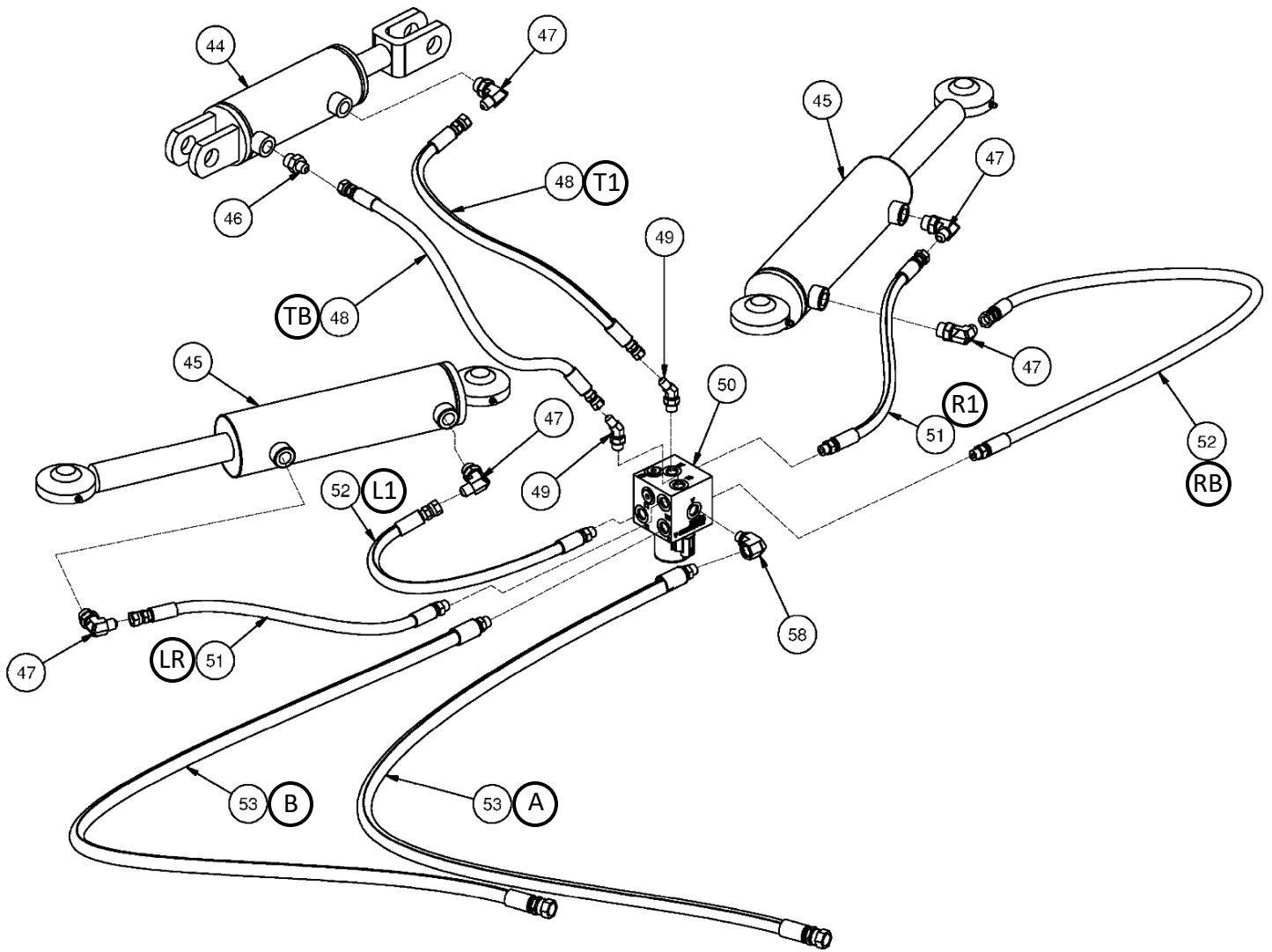
HYDRAULIC SYSTEM

ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
44	1	317037	CYLINDER 3 X 4 C-C	
45	2	317081	CYLINDER 3 X 8 SPEEDBALLS	
46	1	201925	ADPT STR 8MB-6MJ	
47	5	320089	ADPT ELB 8MB-6MJ-90	
48	2	317141	HOSE 1/4 X 27 4FJX-6FJX	TILT
		317121	HOSE 1/4 X 27 4FJX-8MB	OBSOLETE - PARTS ONLY
49	2	320213	ADPT ELB 6MB-4MJ-45	
50	1	317078	VALVE ASSEMBLY	
51	2	317123	HOSE 1/4 X 25 6FJX-6MB	CYLINDER ROD - ANGLING
52	2	317122	HOSE 1/4 X 30 6FJX-6MB	CYLINDER BASE - ANGLING
53	2	317120	HOSE 3/8 X 75 8FJX-6MB	LEAD
58	1	300801	ADPT ELB 6MB-6FB-90	

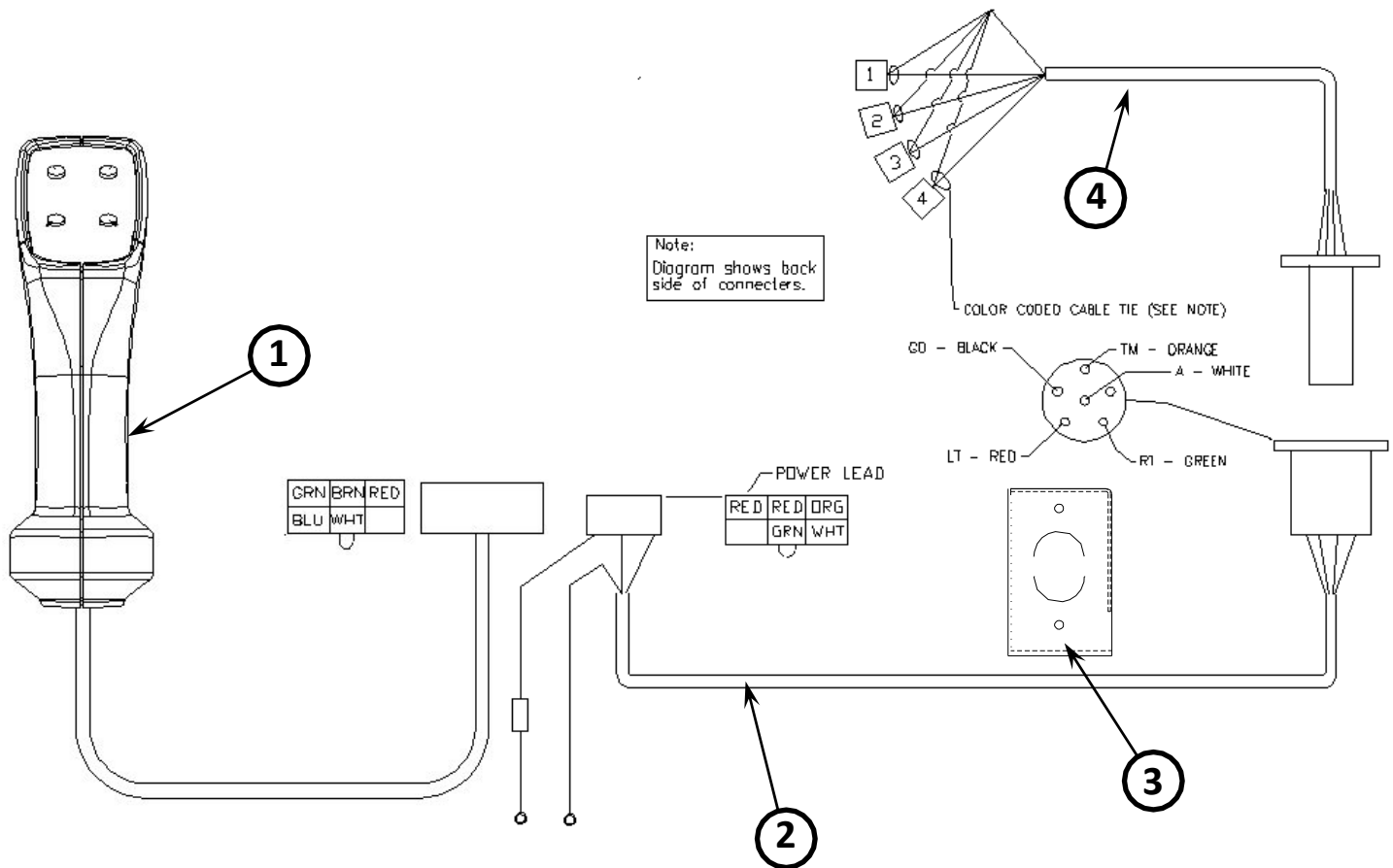
VALVE BLOCK ASSEMBLY

ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
54	2	13103	BOLT HEX	3/8 X 3/4 NC GR 5
59	1	314899	COIL VALVE 12V ECOIL #10	REPLACED 317132
	1	317132	COIL VALVE DIRECTIONAL	REPLACED BY 314899
60	1	300293	VALVE DIRECTIONAL	

PARTS INFORMATION



WIRE HARNESS PARTS INFORMATION



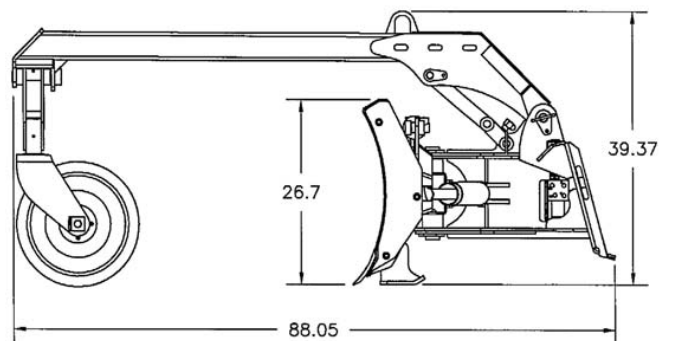
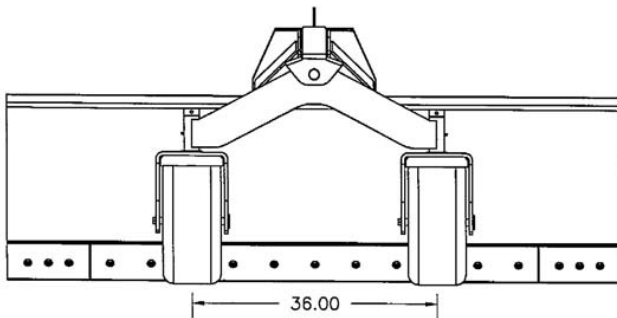
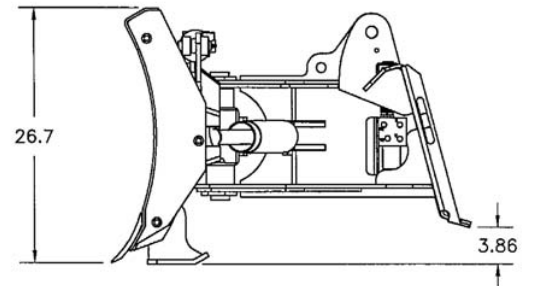
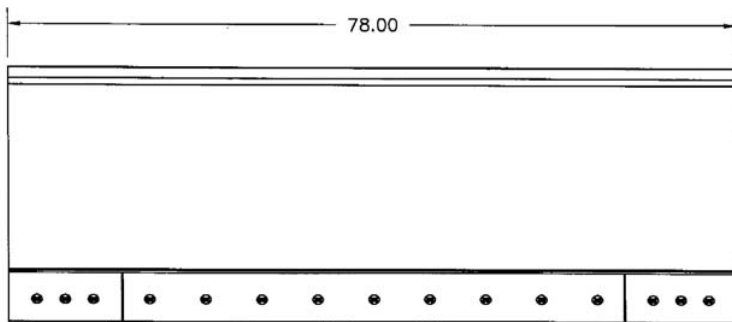
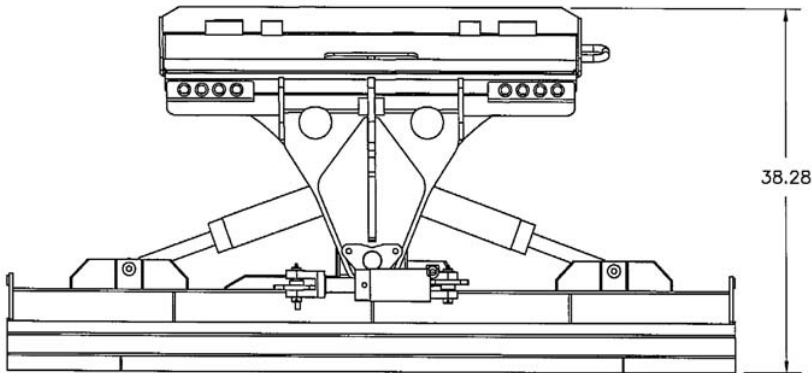
REF.	PART NO.	DESCRIPTION	QTY.
	315128	COMPLETE HARNESS – generic (shown).....	1
1	315110	PISTOL GRIP – handle assembly w/ harness.....	1
2	315126	LOADER HARNESS – assembly.....	1
3	202489	RECEPTACLE BRACKET – loader harness.....	1
4	315127	BLOWER HARNESS – assembly.....	1

Optional Harnesses (not shown):

315090	14-PIN UNIVERSAL – for Bobcat® Loaders
315152	14-PIN UNIVERSAL – for Case® & New Holland® Loaders
320084	14-PIN UNIVERSAL – for John Deere® Loaders
200008	8-PIN – for Caterpillar® A series Loaders
315153	8-PIN – for ASV® Loaders
315339	8-PIN – for Caterpillar® B series High-Flow Loaders

GENERAL SPECIFICATIONS

Model	DB78	DB90	DB96
Working Width	78"	90"	96"
Overall Height – Standard	26.7"		
Overall Height – w/ Wheel Kit	39.4"		
Overall Length – Standard	38.3"		
Overall Length – w/ Wheel Kit	88"		
Overall Width – Fully Angled	67.5" @ 30°	78" @ 30°	83" @ 30°
Tilt Angle	±12°		
Cutting Edge	1/2" x 6" bolt-on		
Operating Weight – Dozer Blade	840 lbs.	885 lbs.	900 lbs.
Operating Weight – Wheel Kit	400 lbs.		
Operating Weight – Wing Kit	100 lbs.		



All dimensions are in INCHES.

BOLT TORQUE INFORMATION

Torque-Tension Relationships for SAE J429 Grade Bolts

Nominal Thread Size	SAE J429 Grade 2			SAE J429 Grade 5			SAE J429 Grade 8		
	Clamp Load (lbs)	Tightening Torque		Clamp Load (lbs)	Tightening Torque		Clamp Load (lbs)	Tightening Torque	
		K = .15	K = .20		K = .15	K = .20		K = .15	K = .20
Unified Coarse Thread Series									
1/4-20	1,300	49 in-lbs	65 in-lbs	2,000	75 in-lbs	100 in-lbs	2,850	107 in-lbs	143 in-lbs
5/16-18	2,150	101	134	3,350	157	210	4,700	220	305
3/8-16	3,200	15 ft-lbs	20 ft-lbs	4,950	23 ft-lbs	31 ft-lbs	6,950	32.5 ft-lbs	44 ft-lbs
7/16-14	4,400	24	30	6,800	37	50	9,600	53	70
1/2-13	5,850	36.5	49	9,050	57	75	12,800	80	107
9/16-12	7,500	53	70	11,600	82	109	16,400	115	154
5/8-11	9,300	73	97	14,500	113	151	20,300	159	211
3/4-10	13,800	129	173	21,300	200	266	30,100	282	376
7/8-9	11,425	125	166	29,435	321	430	41,550	454	606
1-8	15,000	187.5	250	38,600	482.5	640	54,540	680	900
Unified Fine Thread Series									
1/4-28	1,500	55 in-lbs	75 in-lbs	2,300	85 in-lbs	115 in-lbs	3,250	120 in-lbs	163 in-lbs
5/16-24	2,400	112	150	3,700	173	230	5,200	245	325
3/8-24	3,600	17 ft-lbs	22.5 ft-lbs	5,600	26 ft-lbs	35 ft-lbs	7,900	37 ft-lbs	50 ft-lbs
7/16-20	4,900	27	36	7,550	42	55	10,700	59	78
1/2-20	6,600	41	55	10,200	64	85	14,400	90	120
9/16-18	8,400	59	79	13,000	92	122	18,300	129	172
5/8-18	10,600	83	110	16,300	128	170	23,000	180	240
3/4-16	15,400	144	193	23,800	223	298	33,600	315	420
7/8-14	12,610	138	184	32,480	355	473	45,855	500	668
1-12	16,410	205	273	42,270	528	704	59,670	745	995

Clamp load estimated as 75% of proof load for specified bolts.

Torque values for 1/4 and 5/16 inch series are in inch-pounds. All other torque values are in foot-pounds.

Torque values calculated from formula $T = KDF$

where: $K=0.15$ for "lubricated" conditions

$K=0.20$ for "dry" conditions

LIMITED WARRANTY

Erskine Attachments LLC warrants each new machine manufactured by us to be free from defects in material and workmanship for a period of twenty-four (24) months from date of delivery to the original purchaser.

Our obligation under this warranty is to replace free of charge, at our factory or authorized dealership, any part proven defective within the stated warranty time limit.

All parts must be returned freight prepaid and adequately packaged to prevent damage in transit.

This warranty does not cover:

1. New products which have been operated in excess of rated capacities or negligence
2. Misuse, abuse, accidents or damage due to improperly routed hoses
3. Machines which have been altered, modified or repaired in any manner not authorized by our company
4. Previously owned equipment
5. Any ground engaging tools in which natural wear is involved, i.e. tooth tips, cutting teeth, etc
6. Normal maintenance
7. Fork tines
8. Hydraulic motors that have been disassembled in any manor

In no event will the Sales Representative, Dealership, Erskine Attachments LLC, or any other company affiliated with it or them be liable for incidental or consequential damages or injuries, including but not limited to the loss of profit, rental or substitute equipment or other commercial loss. Purchaser's sole and exclusive remedy being as provided here in above.

Erskine Attachments LLC must receive immediate notification of defect and no allowance will be made for repairs without our consent or approval.

This warranty is in lieu of all other warranties, express or implied by law or otherwise, and there is no warranty of merchantability or fitness purpose.

No agent, employee, or representative of Erskine Attachments LLC has any authority to bind Erskine Attachments LLC to any warranty except as specifically set forth herein. Any of these limitations excluded by local law shall be deemed deleted from this warranty; all other terms apply.

This warranty may not be enlarged or modified in any manner except in writing signed by an executive officer of Erskine Attachments LLC to improve its products whenever it is possible and practical to do so. Erskine Attachments LLC reserves the right to make changes and or add improvements at any time without incurring any obligation to make such changes or add such improvements to products previously sold.

Erskine Attachments LLC
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P/N 320192
Erskine Attachments LLC

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