



Forestry Mulcher

For

Skid Steer Loaders

Operator's Manual
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 ATTACHMENTS 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 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.

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 attachment is designed to cut brush and small trees. **NEVER** use this machine for any other purpose.
- To protect the operator, the loader must be fitted with approved Forestry Door, Forestry Kit, and Level II Falling Object Protective Structure (FOPS) Kit.
- 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.
- Depending on how this attachment is used, dust can be created. Prolonged exposure to dust can cause chronic and acute health problems. A NIOSH-approved respirator may be required.
- Keep people away from loader, attachment and discharge when in use. This attachment sends objects flying and has rotating parts. **NEVER** direct discharge toward people – rocks and debris can be thrown hundreds of feet.

Operation (continued)

- **NEVER** operate near embankments or terrain that is so steep that rollover could occur.
- Always stay in the operator position when using the attachment. If you are using a walk-behind loader, stay behind the loader at the controls while operating.
- Before leaving the operators position, disengage hydraulic drive, lower the attachment to rest flat on the ground, stop engine, set park brake, and wait for all motion to stop. The attachment is equipped with a shutdown braking circuit that stops the rotor rotation in an abbreviated amount of time, usually about 10 seconds.
- **NEVER** place hands in the discharge area or clear debris while the 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.

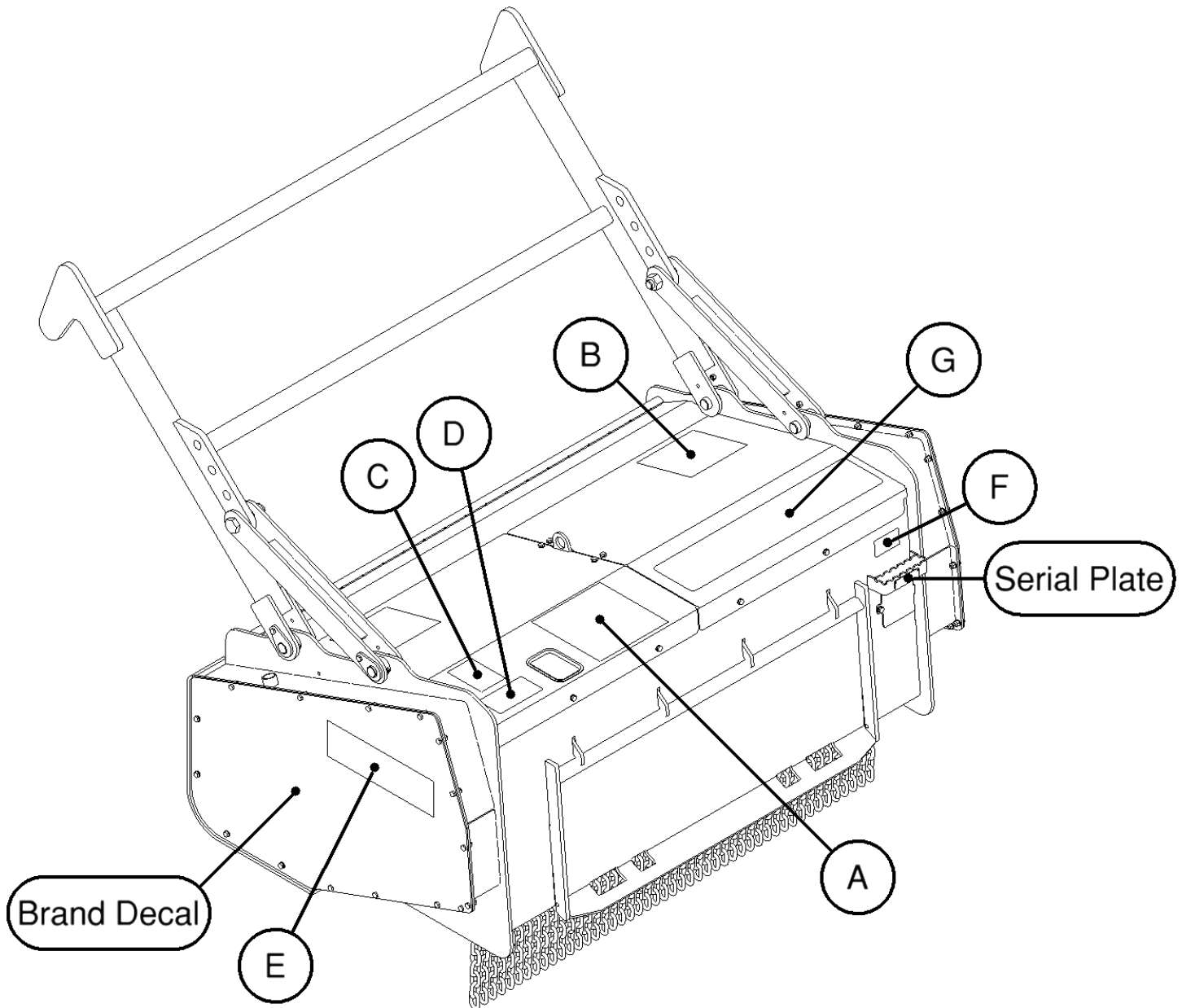
Maintenance

- **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

(A)



Part Number: 314676

Location: Top of left shield near hose hole

Quantity: 1

(B)



Part Number: 316078

Location: Top of front shield, both sides

Quantity: 2

(C)

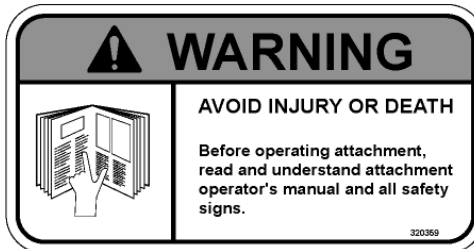


Part Number: 200001

Location: Top of left shield, near hose hole

Quantity: 1

(D)



Part Number: 320359

Location: Top of left shield, near hose hole

Quantity: 1

(E)



Part Number: 400493

Location: On each side shield

Quantity: 2

(F)

This Forestry Mulcher was originally built with the following motor pkg.

Punch Here	PMI #	FLOW RANGE (GPM)	PRESSURE
	900922/901396	33-36	4000+
	900923/901397	37-41	3000+
	900924/901398	33-36	3000+
	900925/901399	37-41	4000+

314691B

Part Number: 314691

Location: On back, near serial plate

Quantity: 1

(G)

Part Number: 314096 Anti-skid tape 6x28

Location: Top of right shield near back

Quantity: 1

Part Number: Large Brand Decal

Location: On each endplate

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.

MOUNTING INSTRUCTIONS

After uncrating the attachment, use the following procedure to mount the attachment to the loader.

⚠ WARNING Coupler wedges or pins must extend through the holes in attachment. Levers must be fully down and locked. Failure to secure wedges or pins can allow 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 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 brush mower mounting bracket.
5. Stop the engine and engage the park brake.
6. Secure the coupler locking mechanism that attaches the attachment to the loader.

MOUNTING INSTRUCTIONS

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

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.

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: You must connect the small, third hose which is the case drain hose, or you will permanently damage the hydraulic motor.

NOTE: See the loader's operator's manual.

NOTE: Attachment is shipped with 16FJX (1-5/16" Female JIC Swivel) fittings on the ends of the lead hoses and 8FJX (3/4" Female JIC swivel) on the case drain hose.

8. 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.



NOTE: Make sure the pressurized hose is routed to the "B" port of the motor valve block. If it isn't, the attachment will not operate properly. The proper hose to pressurize has PRESSURE stamped on the outer cover and/or a red cable tie on the end.

NOTE: If you are operating the loader controls correctly and the mulcher still does not work, try switching the hydraulic couplers around on the mulcher lead hoses. This will effectively reverse the flow to the motor.

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

OPERATING INSTRUCTIONS

IMPORTANT: Before operating the attachment, perform the service schedule for routine maintenance.

IMPORTANT: Certain materials can wrap around parts of the attachment or cause other damage. Avoid shredding materials like metal wire, hoses, ropes, tarps, mattresses, rugs, or plastics. Use caution when shredding especially stringy vegetation like Palmetto or Bird of Paradise.

IMPORTANT: Certain land features can cause damage. Inspect the cutting area and avoid obstructions like drop offs, holes, rocks, debris, etc.

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. Activate the auxiliary hydraulic system to start the rotor rotation. Make sure auxiliary hydraulic circuit is operating in the High Flow mode.

NOTE: Certain loaders may not operate in high flow mode without a special wire harness. Others require the control switches to be operated in a specific way. It may also be necessary to switch the hose couplers around to match your loader. (See loader's operator's manual)

IMPORTANT: The attachment is designed to operate from 33 to 41 gpm. Operating at higher flow rates can cause serious damage to the mulching head and will void the warranty.

3. With the loader boom lowered completely and the auxiliary hydraulics engaged, slowly rotate the loader coupler forward until the attachment skid shoes are parallel to the ground.

NOTE: It may be helpful in certain instances to raise or roll forward the mulching head.

4. With the auxiliary hydraulics fully engaged slowly drive into the brush and push debris over.

NOTE: The type of brush being cut and the ground conditions will determine the best ground speed and cutting procedure.

NOTE: It may be helpful in certain instances to cut the tops of trees of before pushing them over. (Continue reading to learn proper tree topping method).

OPERATING INSTRUCTIONS

Topping a Tree

⚠ WARNING To avoid serious injury or death, keep people away from the loader and attachment when in use. The attachment can drop trees and limbs in unpredictable directions. Make sure there are no people, power lines, buildings, or other objects that could be in the fell zone. NEVER cut trees that could fall into these objects. Loader MUST be equipped with approved Forestry Door, Forestry Kit, and Level II Falling Object Protective Structure (FOPS) Kit.

1. To properly top a tree, fully raise lift arms to cut the tree as high as possible. Then ease into the tree and cut top off. This leaves the bottom of the tree attached to ground and makes cutting more efficient.

NOTE: In certain cases it might be optimal to punch the attachment head into the tree instead of easing into it.

2. Once the tree is cut off, lower the attachment slowly over the remaining tree trunk, making sure not to stall the mulching drum. If you lower the attachment too quickly you may stall the drum.

NOTE: If the attachment drum is stalled by cutting too fast, the attachment will be cutting inefficiently.

3. To mulch material to a smaller size, you should drive over the cut material and lower the loader arms, then roll coupler forward and back the loader up. (Continue doing this until proper mulch size is obtained).

⚠ WARNING The attachment is equipped with a shutdown braking circuit that stops the rotor rotation in an abbreviated amount of time. Do not get out of the operator seat until drum is completely stopped, usually about 10 seconds.

IMPORTANT: DO NOT adjust anything on the motor under any circumstances. This could cause an unsafe braking condition and will void all warranties.

IMPORTANT: DO NOT operate the attachment if excessive vibration is present. Serious damage can occur. Check teeth and belt.



OPERATING INSTRUCTIONS

Unplugging the Drum

Option 1: Unplug by hand

1. Stop the engine, engage the park brake and exit the loader.
2. Relieve the hydraulic pressure. (See your loader's operator's manual for proper instructions).
3. Disconnect auxiliary hydraulic hoses.
4. Manually remove built-up material from around the drum.

⚠ WARNING To avoid injury or death, never put hands, feet, head, or objects in front of the attachment when engine is running or when there is an operator in the loader.

Option 2: Roll against standing tree

1. Locate a standing tree.
2. With the auxiliary hydraulics turned off, tilt the carrier coupler all the way back, raise the lift arms and press the attachment against the tree trunk.
3. Lower the lift arms.
4. As the tilt arms are lowered the drum will rotate backwards removing any built-up material.

Option 3: Roll against fallen tree

1. Locate a fallen tree.
2. With the auxiliary hydraulics turned off, raise the lift arms over the tree.
3. Lower the lift arms placing the drum on the tree.
4. Drive the loader backwards dragging the drum and removing any built-up material.

ROUTINE MAINTENANCE

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

It is the operator's responsibility to make daily inspections of the attachment and loader 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 and set screws can loosen after initial usage. After first hour of operation check all bolts and set screws. This must also be done daily before operation. If nuts or bolts are missing or damaged, replace immediately.

IMPORTANT: Fluids such as engine oil, gear lube, and hydraulic fluid must be disposed of in an environmentally safe manner. Some regulations require that certain spills and leaks be cleaned in a specific manner. Check local, state, and federal regulations for the correct disposal.

DAILY INSPECTION

Follow the rotary cutter service schedule for routine maintenance.



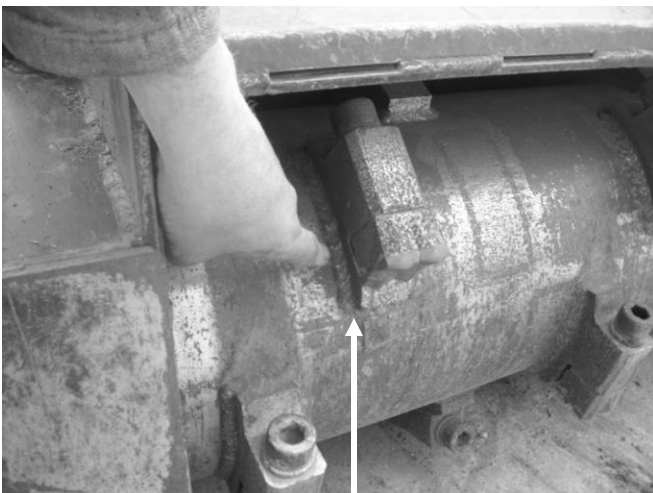
Check the following items every **4 hours** of operation:

1. Check teeth for cracks or excessive damage. Replace if necessary.
2. Check entire attachment for weld cracks or excessive damage. Replace if necessary.
3. Check teeth mounting hardware for proper torque of 300ft. lbs. (407Nm).
4. Check all hardware. Retighten if necessary.
5. Check shields. Repair if damaged or replace if necessary.
6. Check for damaged or missing decals. Replace if missing.
7. Check for damaged or leaking hydraulic hoses or fittings. Replace if necessary.
8. Clean debris, leaves, grass, and flammable material from main frame area and under covers.
9. Check that the antiskid treads are in good condition.

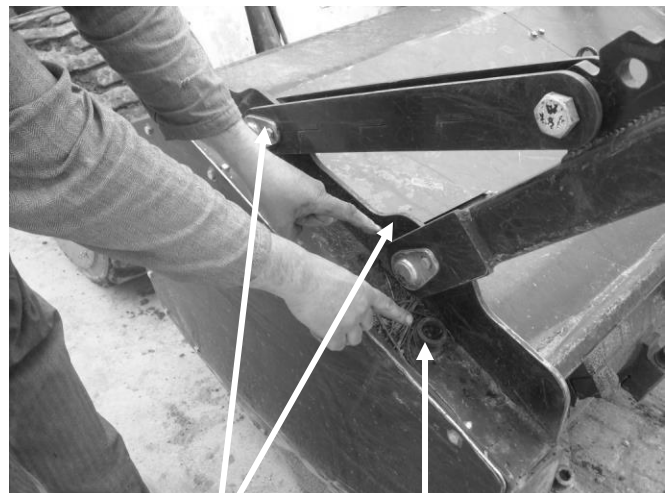
Lubricate all four pivot points every 40 hours.

Grease both main bearings (2). No more than 2 pumps of grease every 8 hours.

NOTE: Attachment is not bi-directional, if attachment drum spins in wrong direction contact Erskine attachments immediately.



Check for cracked welds



Push bar Grease Zerk

Drum Bearing Grease Zerk

ROUTINE MAINTENANCE

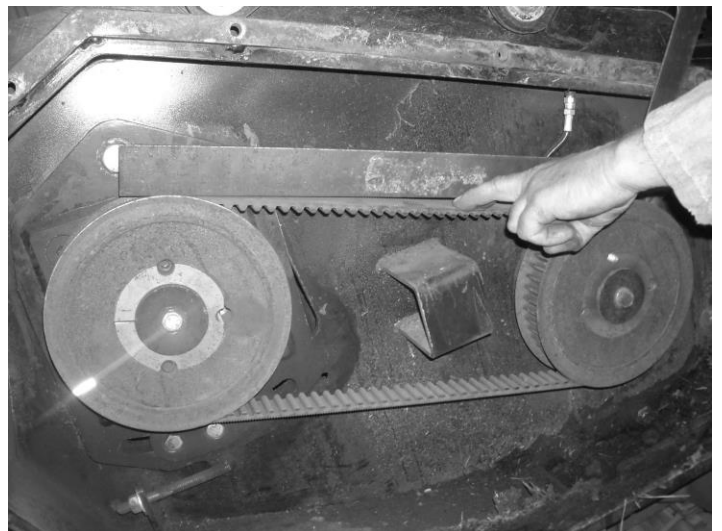
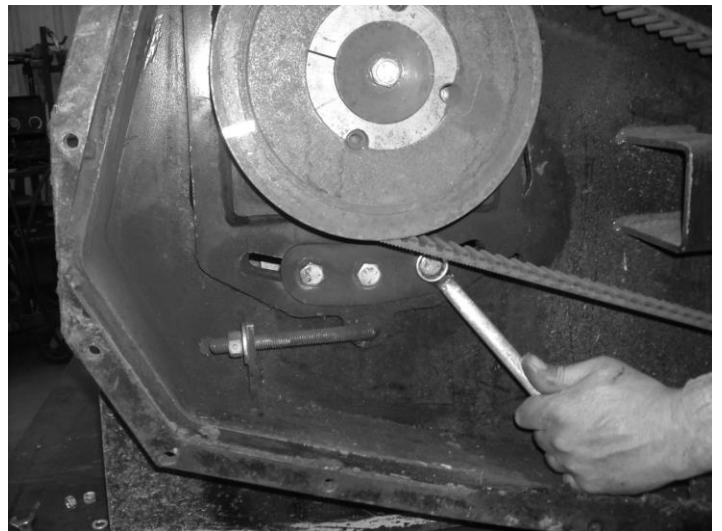
Inspecting and changing the Drive belt

1. Remove right hand side shield on the attachment.
2. Check the condition and tension of the belt (to properly tension belt keep reading).
3. Loosen four bolts on motor/belt tension plate (shown in picture).
4. Loosen tension bolt until belt can easily slip off of motor and drum sprockets.
5. Check for any loose fasteners on the motor and bearings. Check sprockets and taper lock hubs for looseness. Replace as needed.



Instructions to reinstall the belt

1. Replace belt over motor and drum sprockets and re-tension the belt in the opposite way used to de-tension the belt.
2. Proper belt tension is when you can indent the belt itself about .375" with your finger.
3. Once belt is properly tensioned retighten the four motor tensioning bolts that were loosened upon removal of the belt.
4. Reinstall the right-side shield plate on the attachment.



ROUTINE MAINTENANCE



Tooth Removal

1. Make sure lead hoses are disconnected from attachment carrier before working on attachment.
2. Remove the bolt by securing the tooth to the holder on the drum and set aside. (As shown in picture.)
3. Continue to do this in a directional manner until all the teeth are removed from the drum.
4. Once all of the teeth are cleared from the drum, inspect the drum for any wear, cracking or breaking.

NOTE: Check that the rotor can swing freely. Also check teeth, mounting hardware, and rotor for wear, cracking, or breakage, which can cause excessive vibrations. Replace if damaged.

NOTE: Tooth may fall from the holder when removing the tooth locking bolt. Always support the tooth while removing the bolt and lock washer.

Tooth Installation

1. Always use a new bolt and locking washer during assembly.
2. Tighten the bolt to 300 ft. lbs. (407 Nm) of torque.
3. Repeat procedure until all teeth have been replaced.
4. The tooth bolt and tooth fit only one way into the tooth holder on the drum. Install the washer between the bolt head and the tooth holder.

NOTE: If a few of the teeth are damaged and a small vibration occurs, it is sometimes possible to rearrange the teeth to reduce the vibration. This is done by putting equal amounts of broken teeth on the opposing side of the drum. This will only work for minimal vibration and may not completely fix the problem. Some vibration is acceptable or normal.



ROUTINE MAINTENANCE

Reversing Teeth Direction

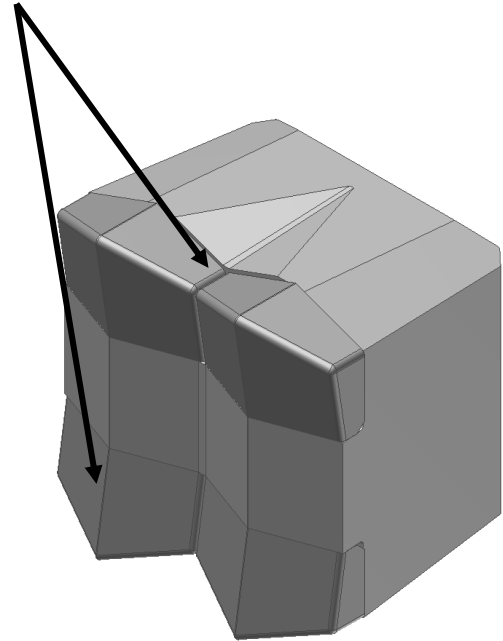
The attachment is equipped with double-sided teeth.

1. When the original side gets worn down or chipped, the tooth can be turned 180 degrees in order to effectively use both cutting surfaces on the tooth.
2. After rotating the tooth, re-torque it to (300) ft-lbs. If bolts are damaged, replace.

NOTE: Always replace the teeth with ones that are equal in weight to prevent vibration. Always use genuine Erskine™ replacement teeth.

Do not sharpen or weld on the teeth. Running with broken teeth may cause vibration due to the drum being unbalanced.

Double sided tooth



Cleaning the Attachment

1. Position the attachment flat on the ground.

⚠ WARNING To avoid injury or death, never service the attachment in the raised position. Always service with the attachment sitting flat on the ground.

2. Remove the top shields to access the motor cavities.
3. Use water or a small brush to remove any unwanted dirt and debris.

⚠ WARNING Use care when removing any debris wrapped around the teeth, drum, or motor shaft. Drum can rotate suddenly.

4. Reinstall shields when complete.

ROUTINE MAINTENANCE

Adjusting the push bar

The attachment is equipped with adjustable push bar. There are three adjustment positions. To adjust the push bar, follow these instructions:

1. Attach a chain hoist or something comparable to hold the push bar up before adjusting.

⚠ WARNING To avoid injury or death, always support push bar with some sort of restraint before adjusting.

2. Remove both bolts from push bar supports.
3. Adjust push bar to desired location and replace/retighten bolts with locking nuts.

NOTE: When topping trees, the push bar should be adjusted out as shown in the picture. This will allow the push bar to act as a directional push bar and help keep treetops from falling on the loader and attachment.

4. Remove chain hoist or support.



GENERAL SPECIFICATIONS

Model

Mounting Plate

Hydraulic Pump Capacity Requirements

Operating Weight

Cutting Width

Cutter Capacity

Forestry Attachment

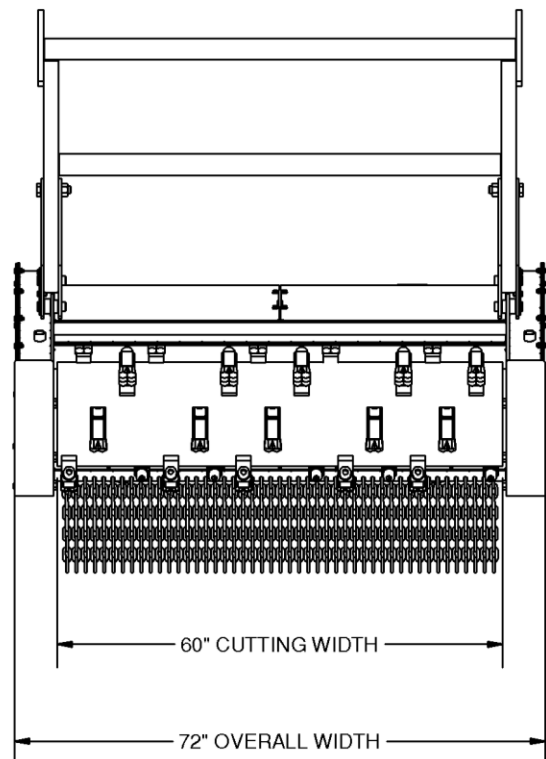
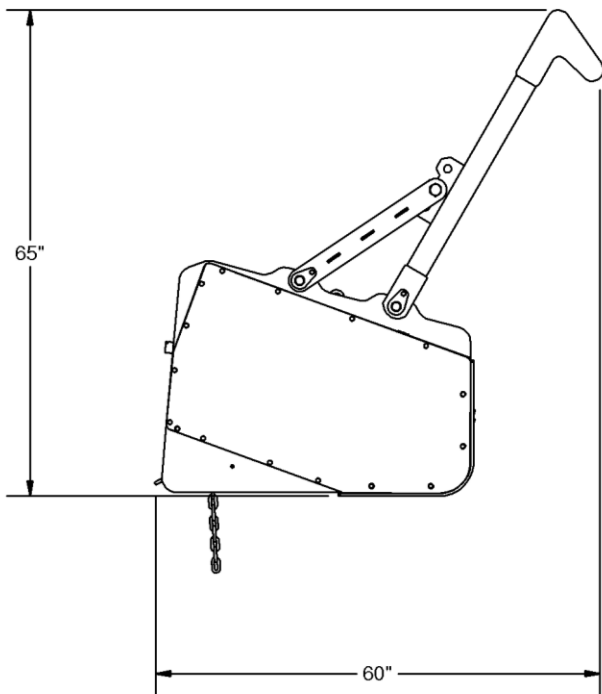
Universal

33 to 41 GPM

2500 lbs.

60"

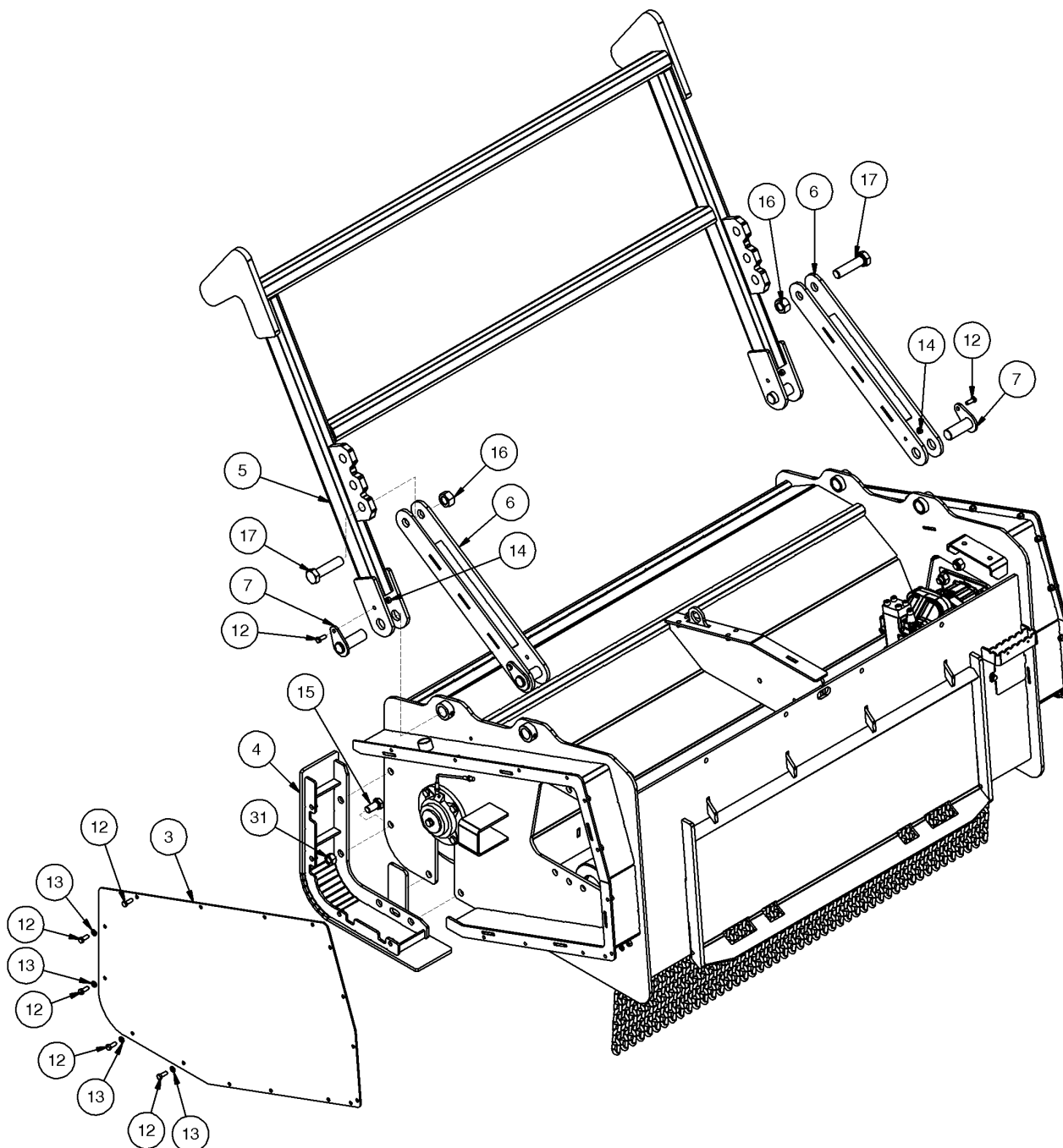
material up to 10"



All dimensions are in INCHES.

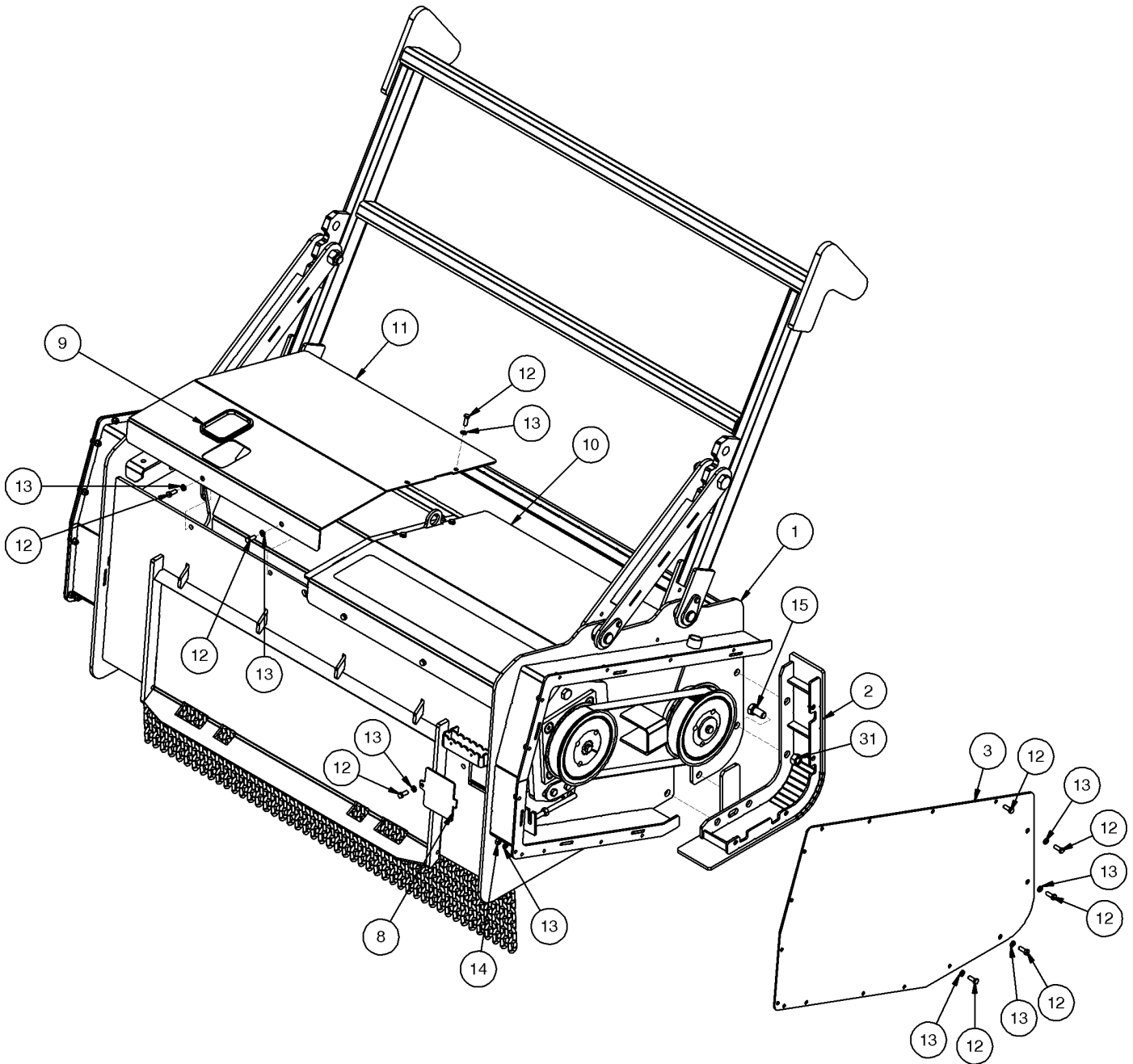
PARTS INFORMATION

ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
3	2	314647	SHIELD SPROCKET PAINTED	
4	1	314601	SKID SHOE LH W/A	
5	1	314605	PUSH BAR W/A	
6	2	314606	PUSH BAR BRACE W/A	
7	4	319117	PIN 1.25 X 3.313 W/A	
12	45	103116	BOLT HEX	3/8 X 1 NC GR 5
13	41	103880	WASHER LOCK	3/8"
14	28	37212	NUT HEX LOCK	3/8 NC
15	8	13359	BOLT HEX	3/4 X 1 1/2 NC GR 5
16	2	37219	NUT HEX LOCK	1 NC
17	2	13469	BOLT HEX	1 X 4 NC GR 5
31	8	37217	NUT HEX LOCK	3/4 NC



PARTS INFORMATION

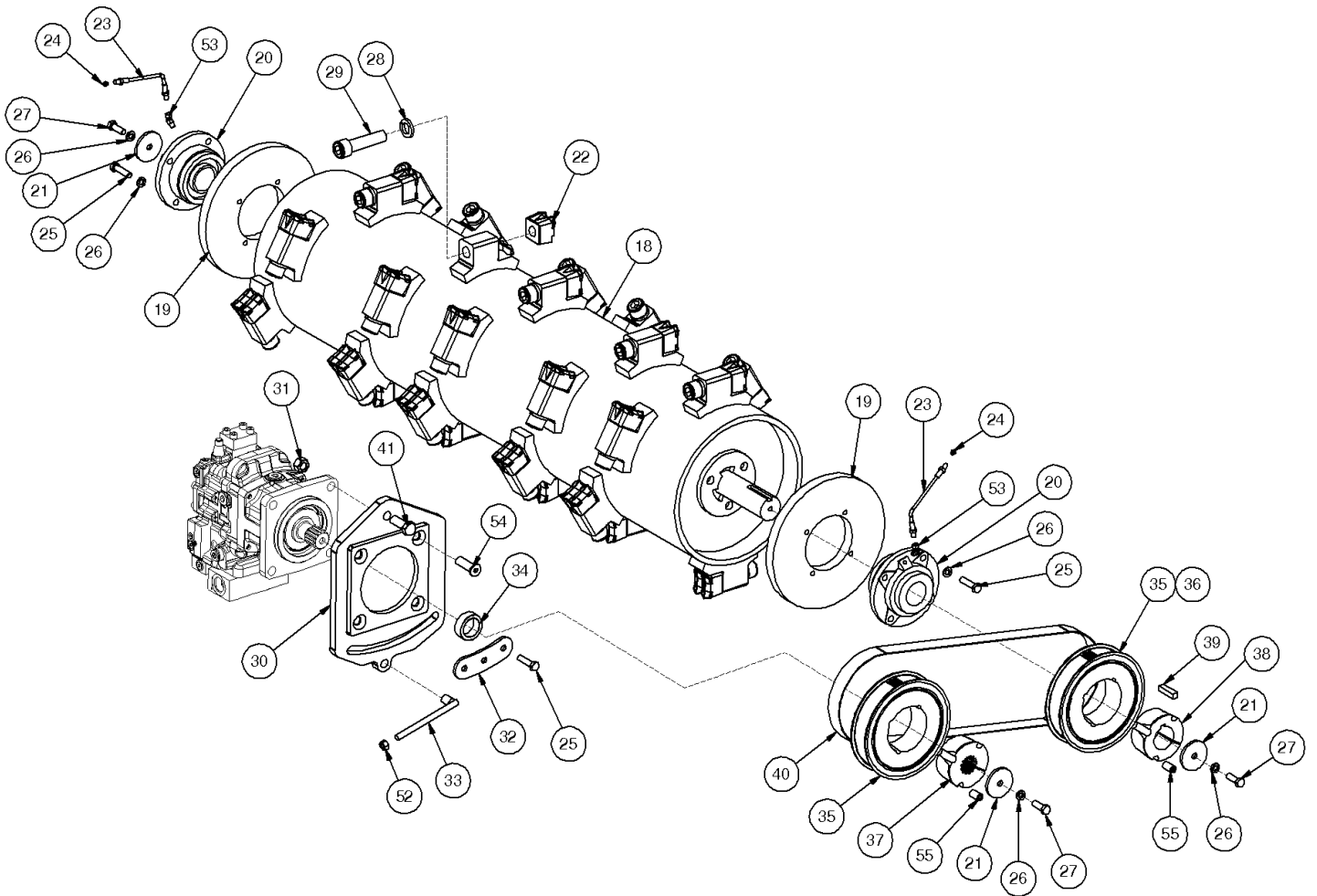
ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
1	1	314600	BODY MULCHER W/A	
2	1	314602	SKID SHOE RH W/A	
3	2	314647	SHIELD SPROCKET PAINTED	
8	1	314664	COVER MOTOR PAINTED	
9	1	314655	TRIM-HOLE FORESTRY MULCHER	
10	1	314643	SHIELD TOP RH PAINTED	
11	1	314645	SHIELD TOP LH PAINTED	
12	45	103116	BOLT HEX	3/8 X 1 NC GR 5
13	41	103880	WASHER LOCK	3/8"
14	28	37212	NUT HEX LOCK	3/8 NC
15	8	13359	BOLT HEX	3/4 X 1 1/2 NC GR 5



PARTS INFORMATION

ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
18	1	314607	ARBOR MULCHER W/A	
19	2	314666	ARBOR LOCKER PAINTED	
20	2	314650	BEARING 2-3/16 BORE	
21	3	314656	WASHER ARBOR .25 X 2.75 X .535 Z	
22	30	314670	TOOTH CARBIDE MULCHER	CARBIDE VERSION
	30	314696	TOOTH STEEL MULCHER	STEEL VERSION
23	2	314687	HOSE GREASE	
24	2	60102	ZERK GREASE 1/8 NPT STR	
25	11	13211	BOLT HEX (USE THREADLOCKER)	1/2 X 2 NC GR 5
26	11	33626	WASHER LOCK	1/2"
27	3	15209	BOLT HEX (USE THREADLOCKER)	1/2 X 1 1/2 NC GR 8 YZ
28	30	33636	WASHER LOCK	1"
29	30	23976	BOLT SCKT HD CAP	1 X 4 NF BO
30	1	314604	MOTOR MOUNT W/A	
31	4	37217	NUT HEX LOCK	3/4 NC
32	1	314662	PLATE MOTOR WASHER	
33	1	314603	MOTOR ADJUSTMENT W/A	
34	1	314652	BUSHING 2.38 x 1.75 x .83 Z	
FOR USE WITH 3000P MOTOR (P/N 314671)				PMI 900924/901398
35	1	314679	SPROCKET 2-3/16 X 50 TOOTH	
36	1	314680	SPROCKET 2-3/16 X 43 TOOTH	
FOR USE WITH 3000P MOTOR (P/N 314671)				PMI 900923/901397
35	2	314679	SPROCKET 2-3/16 X 50 TOOTH	
FOR USE WITH 4100P MOTOR (P/N 314672)				PMI 900922/901396
35	1	314679	SPROCKET 2-3/16 X 50 TOOTH	
36	1	314680	SPROCKET 2-3/16 X 43 TOOTH	
FOR USE WITH 4100P MOTOR (P/N 314672)				PMI 900925/901399
35	2	314679	SPROCKET 2-3/16 X 50 TOOTH	
37	1	314686	TAPER LOCK SPLINED	
38	1	314685	TAPER LOCK 2-3/16	
39	1	314678	KEY SQ 1/2 X 2	
40	1	314681	BELT POLY CHAIN SYNC	
41	1	13361	BOLT HEX	3/4 X 2 NC GR 5
52	1	36110	NUT HEX REG	1/2"
53	2	201535	ADPT ELB 2MP-2FPX-45	INCLUDED IN HOSE KIT
54	4	24447	BOLT FH SCKT CAP	3/4 X 2-1/2 NC GR 5
55	4	23296	SET SCREW 5/8 X 1-1/4 NC OVAL PT	COMES WITH TAPER LOCK

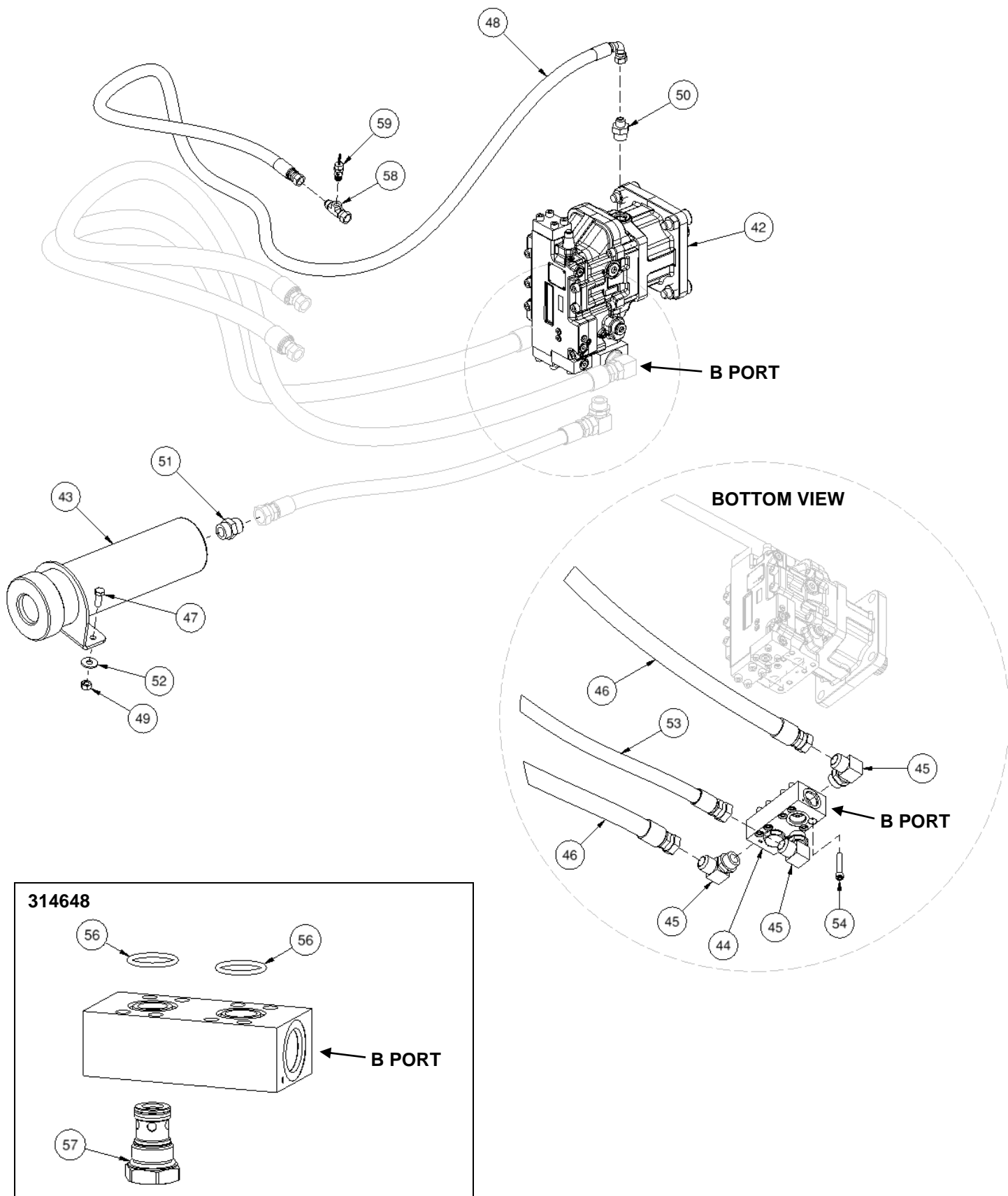
PARTS INFORMATION



FORESTRY MULCHER PARTS INFORMATION

ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
42	1	314671	MOTOR HYD VARI 3000P (3788845 W/YELLOW CAP)	USED IN PMI 900923 & 900924
	1	314672	MOTOR HYD VARI 4100P (3788845 W/RED CAP)	USED IN PMI 900922 & 900925
43	1	314649	ACCUMULATOR	
44	1	314648	VALVE CHECK	
45	3	300661	ADPT ELB 16MB-16MJ-90	
46A	2	314688	HOSE 1 X 140 12FJX-16FJX	BEFORE NOVEMBER 2022
46B	2	314608	HOSE 1 X 140 16FJX-16FJX	AFTER NOVEMBER 2022
47	2	13207	BOLT HEX	1/2 X 1 1/4 NC GR 5
48	1	314689	HOSE 1/2 X 140 8FJX90-8FJX	
49	2	37214	NUT HEX LOCK	1/2 NC
50	1	201524	ADPT STR 12MB-8MJ	
51	1	201528	ADPT STR 16MB-12MJ	
52	2	33012	WASHER FLAT USS 1/2	
53	1	314693	HOSE 3/4 X 35 16FJX-16FJX	
54	8	23362	BOLT SHCS 7/16 X 2-1/4 NC BO	
56	2	321307	O-RING (-219-90N)	
57	1	321308	KIT SEAL CHECK VALVE	
58	1	330990	ADPT TEE 8FJX-8MJ-4FP	
59	1	331384	ADPT STR 4MP RELIEF 225 PSI	

PARTS INFORMATION



TROUBLE SHOOTING

Problem	Possible Solution
Drum operates in wrong direction	<ul style="list-style-type: none">• Contact Erskine Attachments LLC
Drum gets jammed with debris	<ul style="list-style-type: none">• Refer to “Unplugging the Drum” procedures on page 11 in this manual
Belt is loose	<ul style="list-style-type: none">• Refer to belt inspection and installation instructions on page 13 in this manual
Excessive vibration during operation	<ul style="list-style-type: none">• Check teeth and drum for damage (refer to “Daily Inspection” on page 12 in this manual)• Contact your dealer

BOLT TORQUE CHART

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 manner

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
P.O. Box 1083 Alexandria, MN 56308
Phone (218) 435-4045 Fax (218) 435-5293

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Erskine Attachments LLC

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