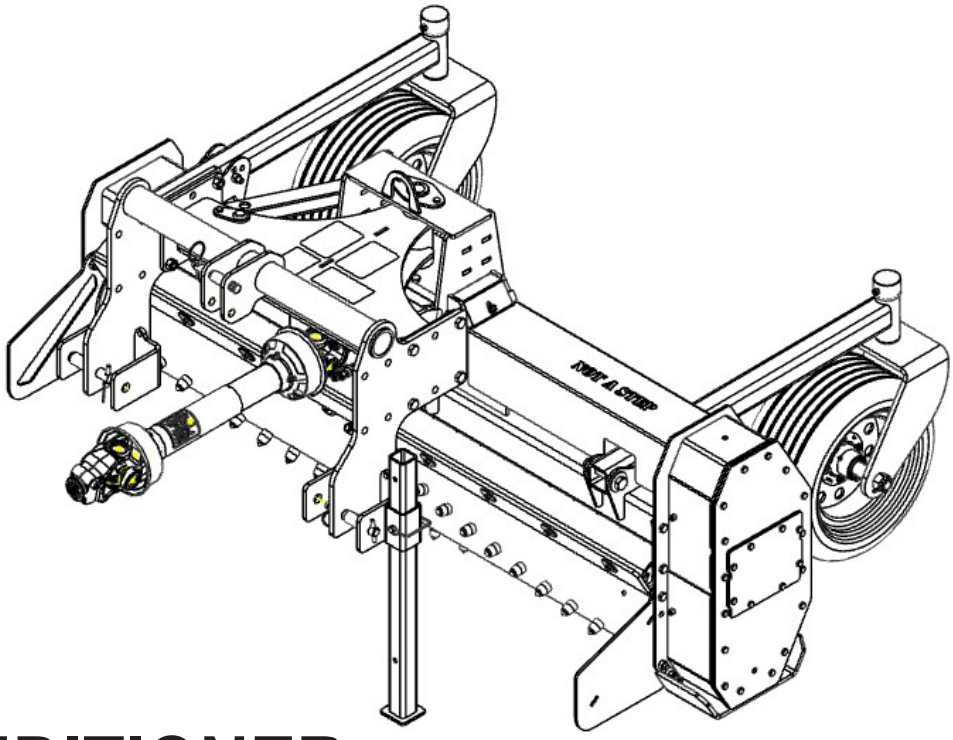
QUICK ATTACH



3PT SOIL CONDITIONER

Models 72 / 84 / 96

Operator's Manual

Maintenance & Parts Information

(S/N 1119993 AND LATER)

Read this Manual Before Use

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NOTE: Write your serial number for your attachment in the spaces below. Always refer to this serial number when calling for services parts.

_____

Serial Number

_____

Attachment Dealer

_____

Address

_____

Phone Number

_____

Contact

NOTE: Quick Attach 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 ("Tractor").

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.

Quick Attach 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.

SAFETY

Improper operation can cause serious injury or death.

PRE-OPERATION

- This attachment is designed for light tilling and windrowing in dirt only. It is not designed to be used as a deep soil tiller. **NEVER** use this machine for any other purpose.
- Read the operator's manual for the "Compact Tractor." **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 Quick Attach 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. Always call before you dig (1-888-258-0808). When you call, you will be directed to a location in your state/city for information about buried lines (electric, telephone, cable TV, water, sewer, gas, etc.).

OPERATION

- Always wear eye protection that meets z87.1 or use with a cab enclosure that provides similar protection.
- 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. Avoid loose fitting clothing. Clothing or hair caught in moving parts may lead to serious injury or death

OPERATION (continued)

- Keep people away from tractor and attachment when in use. This attachment send objects flying and has rotating parts. **NEVER** direct discharge toward people - rocks and debris can be thrown.
- **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, disengage PTO drive, lower the attachment to rest flat on the ground, stop engine, set park brake, and wait for all motion to stop.
- **NEVER** place hands in the discharge area or clear debris while engine is running.

AVOID HIGH PRESSURE FLUID HAZARD

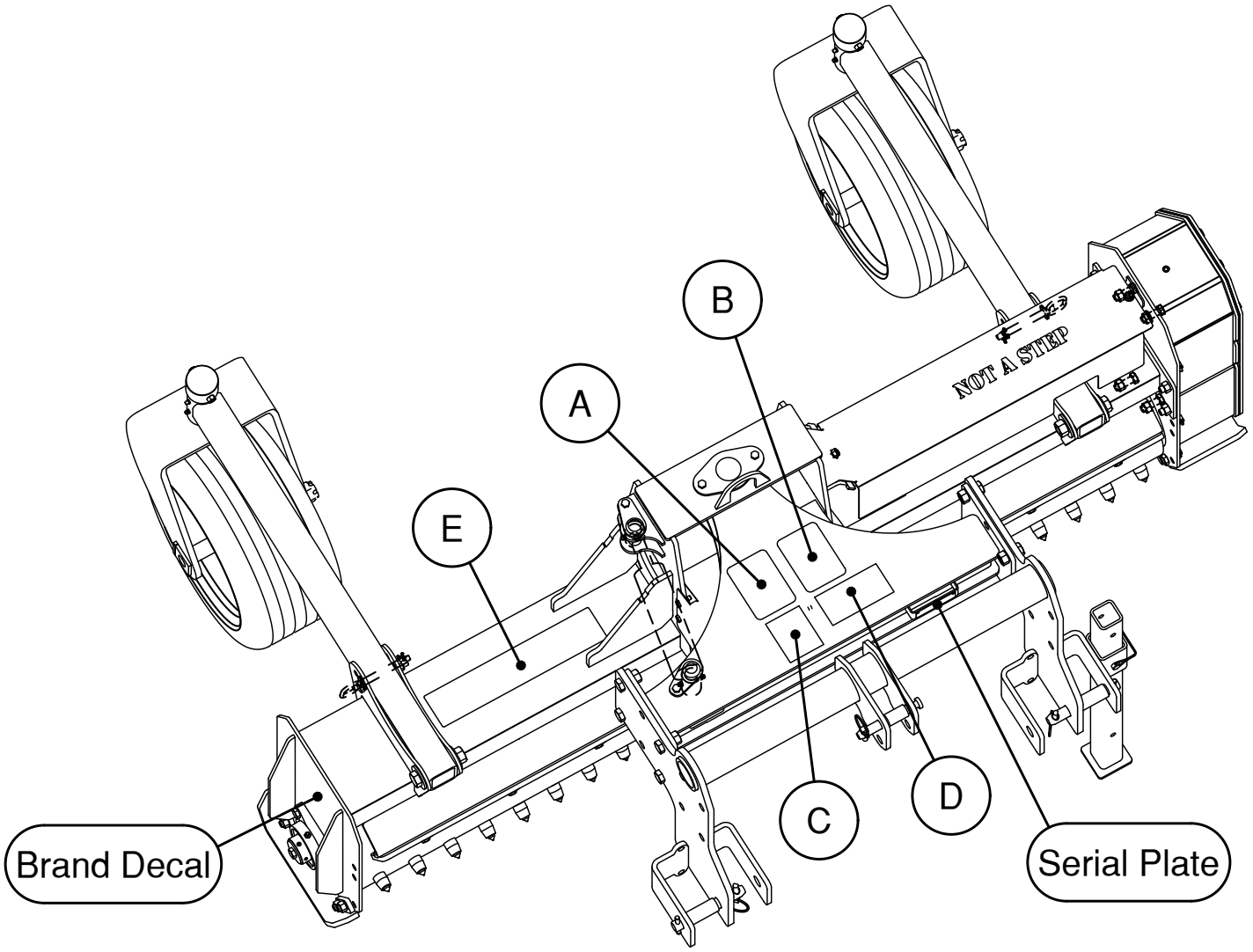
- Escaping fluid under pressure can penetrate the skin causing serious injury.
- Avoid the hazard by relieving the pressure before disconnecting hydraulic lines.
- Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks. Wear protective gloves and safety glasses or goggles when 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.

DECAL INFORMATION

Serial Number Location:
It is important to refer to the serial number of your 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. Please see below for Serial Plate location.



DECAL INFORMATION

A

Part number: 200001
Location: Top of pivot frame
Quantity: 1

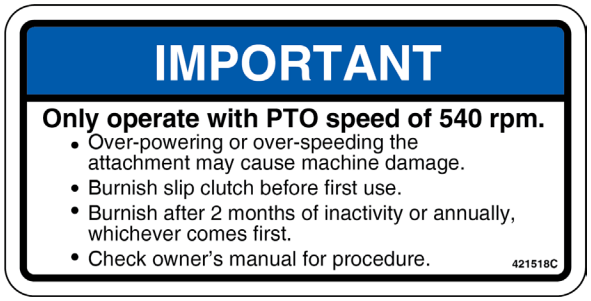
B

Part number: 203234
Location: Top of pivot frame
Quantity: 1

C

Part number: 201415
Location: Top of pivot frame
Quantity: 1

D

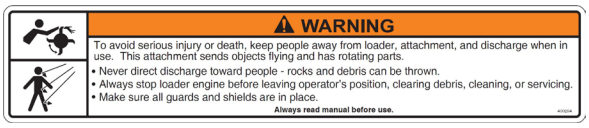


Part number: 421518
Location: Top of pivot frame
Quantity: 1

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 Quick Attach LLC (218-435-4045) for replacement decals.

DECAL INFORMATION

E



Part number: 320359
Location: Top of main frame
Quantity: 1

BD

QUICKATTACH
1.866.428.8224

Brand Decal: Small
Location: On each end plate
Quantity: 2

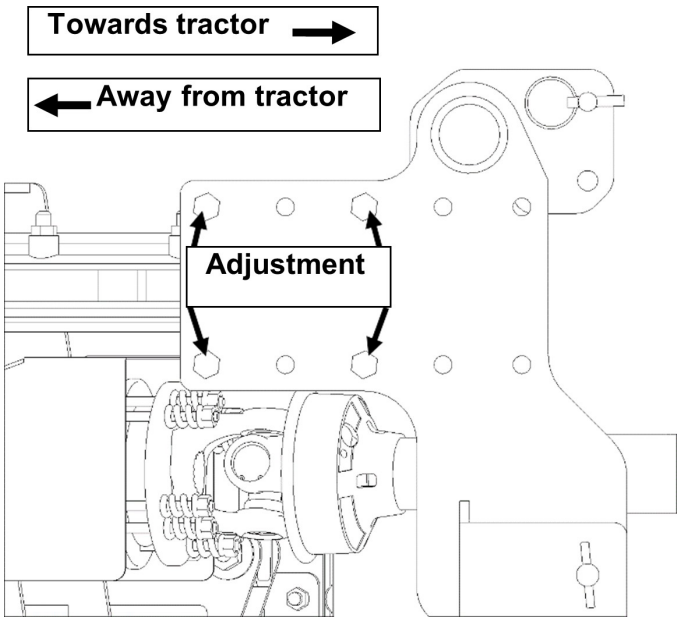
Safety Decals Locations:
The locations of the safety decals are shown. If these decals are missing, damaged, or painted over they must be replaced. Call Quick Attach LLC (218-435-4045) for replacement decals.

SET-UP ASSEMBLY

3-Point Hitch Adjustment

The attachment 3-point hitch may need to be adjusted in either direction to better fit your tractor (especially if a quick hitch is used).

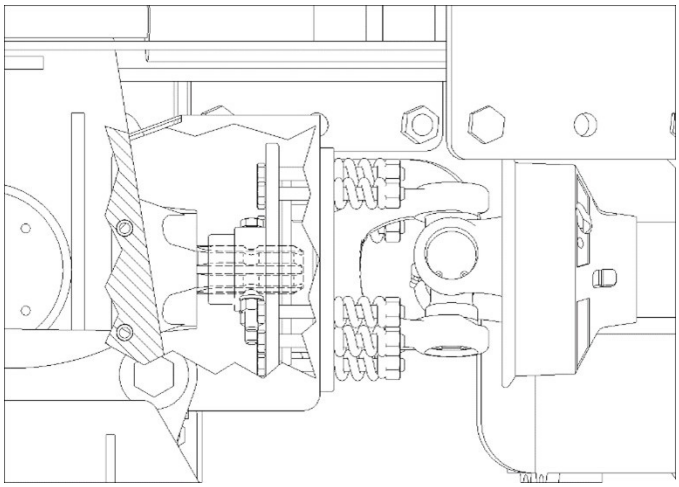
The figure to the left shows the adjustment bolt holes. To move the attachment away from the tractor, use the back holes on the receiver plate as shown. The adjustment bolt hole spacing is in 3” increments. Use the following procedure to adjust the 3-point arm location.



1. Use a hoist or other suitable method to support the 3-point hitch.
2. Remove the hardware from the 3-point hitch.
3. Move the hitch to the desired position.
4. Reinstall the hardware in the 3-point hitch.

Driveline Installation

The attachment is also shipped without the driveline attached. Prior to use, install the driveline to the attachment using the following instructions.



1. Position the attachment flat on the ground.
2. Remove both retaining bolts from the driveline.
3. Grease the attachment gearbox input shaft.
4. Align the driveline splines and gearbox splines and slide the driveline onto the input shaft.
5. Reinstall and tighten the driveline retaining bolts to secure the driveline on the input shaft.
6. Connect the driveline safety shield chain to the hole in the gearbox shield.

The driveline may need to be shortened to fit your tractor. When mounting the attachment on the tractor for the first time, check the driveline length and shorten if necessary (see “Instructions for Shortening the Driveline” on page 12).

SET-UP ASSEMBLY

Caster Wheel Installation

The soil conditioner is shipped with the caster wheels arms pinned backwards on the unit.

After cutting the banding, it will be necessary to remove the pins on the attachment. The caster wheels and arms need to be flipped and bolted onto the attachment using the hardware provided.

⚠ CAUTION Avoid heavy lifting that could cause injury. Use a hoist or two people and proper lifting techniques.

The caster wheels on the attachment are adjustable in 1” increments. Use the pin and appropriate holes for the desired adjustment height, as shown in the “Operating Instructions” on page 13 in this manual.

MOUNTING INSTRUCTIONS

After the initial set-up assembly is completed use the following procedure to mount the attachment to the tractor for user operation.

1. Use the step, safety treads, and grab handles to get on and off the tractor.
2. Sitting in the operator's seat, fasten the seatbelt.
3. Drive the tractor to the front of the soil conditioner. Align the tractor 3-point arms with the attachment mounting pins.
4. Have a second person connect all 3-point links to the attachment using the pins provided.
5. Stop the engine and engage the park brake.
6. Apply a liberal amount of grease to the tractor PTO shaft.
7. Compress the quick release pin on the attachment driveline and align the splines with the tractor PTO shaft splines. Slide the driveline onto the tractor PTO shaft until the quick release pin locks into place (usually about 1.5" to 2" on the PTO shaft).
8. Attach the driveline safety chain to the tractor. Check that the opposite end is connected to the driveline shield.
9. Push and pull on the yokes at both ends of the driveline to verify that the driveline is properly secured to the tractor and attachment.

⚠ WARNING All appropriate hitch pins and PTO driveline must be locked into place. Failure to secure PTO shaft or pins can allow the attachment to disconnect from the tractor and cause injury or death.

⚠ WARNING The tractor must be equipped with a working PTO shield. To avoid serious injury or death, never adjust or move the driveline when connected to the tractor and the tractor's PTO drive is engaged.

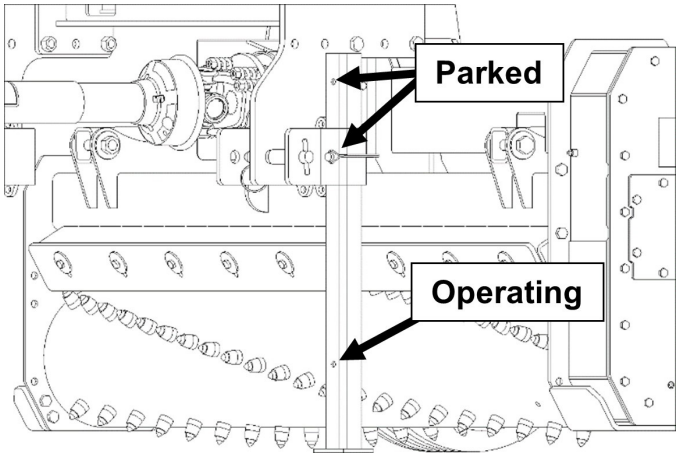
MOUNTING INSTRUCTIONS

10. For models equipped with the hydraulic angle option, connect the attachment hydraulic couplers to the tractor's auxiliary hydraulics. (For auxiliary hydraulic coupler location, refer to tractor's operator's manual.)

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

11. Verify that hydraulic hoses are clear of any potential pinch or catch points and do not rub on any part of the tractor or attachment through the full range of intended motion. Hose routing may vary from tractor to tractor. Use the best hose routing for your specific tractor.

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



12. Lift the attachment slightly off of the ground.

13. Remove the retaining pin from the parking stand, slide the stand up, and reinstall the pin in the bottom (operating) hole.

    IMPORTANT: Failure to raise the parking stand before operating will result in damage to the attachment.

INSTRUCTIONS FOR SHORTENING THE DRIVELINE

⚠ WARNING The tractor must be equipped with working PTO shield. Never adjust or move the driveline when connected to the tractor and the tractor's PTO drive is engaged to avoid serious injury or death.

In some cases it will be necessary to shorten the PTO driveline to match your specific tractor. Use the following procedure to shorten the driveline.

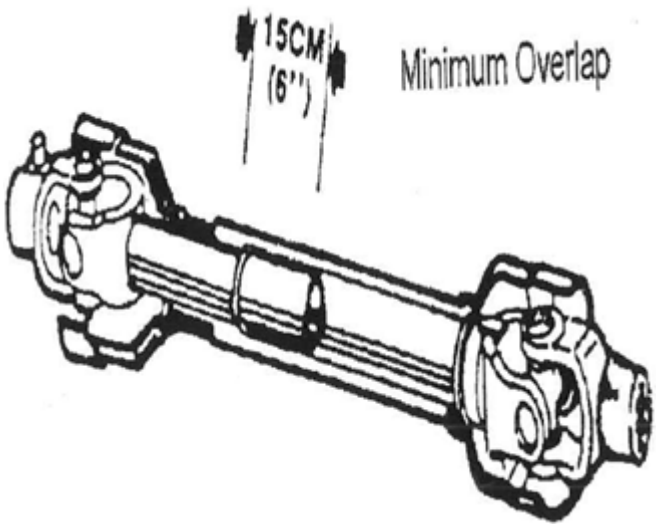
1. Raise the 3-point hitch so the attachment gearbox input shaft is in line with the tractor PTO shaft. This position produces the shortest distance between the gearbox and tractor PTO shafts. Shut down the tractor, leaving the attachment in this position. Securely block the attachment in this position.

2. Pull the driveline apart. Attach the outer (female) section to the tractor PTO shaft. Make sure the driveline is locked into place.

3. Hold the driveline sections parallel to each other to determine if they are too long. Each section should end approximately 3" short of the universal joint shield on the opposite section. If the shaft is too long, measure 3" back from the universal joint and mark it on the opposite end. Do this to both ends of the driveline.

   IMPORTANT: Do not cut the driveline until steps 4 and 5 have been completed.

4. Remove the blocks from under the attachment. Raise and lower the attachment to determine the position with the greatest distance between the gearbox and tractor PTO shafts. Shut the tractor off, leaving the attachment in this position. Securely block the attachment in this position.



5. Hold the driveline sections parallel to each other and check for a minimum 6" of overlap. Overlap will be the distance between the marks made in step 3.

6. If the driveline needs to be cut, remove the marked section of the driveline and shield using a hack saw.

7. Apply multi-purpose grease to the inside and outside of both driveline ends and slide them together.

8. Raise and lower the attachment to check that the driveline assembly does not jam at any point. If it does, cut equal amount off of each end, making sure there is always at least 6" of overlap.

9. Check the full range of intended motion of the attachment and make sure the swinging drawbar on the tractor does not contact the driveline at any point. If necessary, the drawbar can be moved forward or removed on most tractors (refer to your tractor's operator's manual).

OPERATING INSTRUCTIONS

Tilling

1. Before using the attachment, survey the entire area carefully to make sure that there aren't any obstructions that may interfere with operation or damage the attachment.

   IMPORTANT: Usually, clearing an area of rocks is the final operation, except for areas that have abundant rocks. When clearing rocks, it is necessary to set the attachment at a very shallow depth, just touching the soil. Large windrows could cause damage or premature wear to the rotor. Pick up the windrows before they become too large.

   NOTE: If the soil is very hard and/or compacted, break up the ground before using the attachment.

2. With the operator in the seat of the tractor and the seat belt fastened, start the engine.
3. With the engine RPM at an idle, engage the tractor PTO drive. Gradually throttle the engine up to the operating RPM range.

   IMPORTANT: Do not engage or disengage the PTO drive at full throttle.

4. Lower the tractor 3-point arms to lower the soil conditioner and drive forward to begin tilling.

Leveling

Leveling is done while tilling. Shallow settings give a smoother seedbed, while deeper settings level the ground better.

Experience will give the operator a better feel for the best settings to use in each situation.

Shutting Down

When shutting down the attachment, always throttle down the tractor before disengaging the PTO drive. Failure to do this may damage the attachment.

OPERATING INSTRUCTIONS

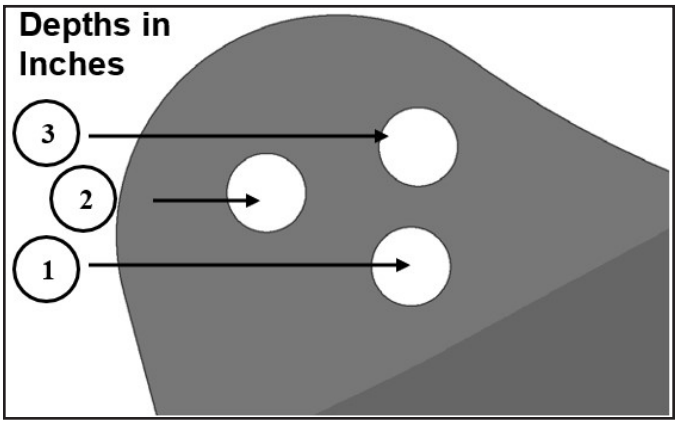
Adjusting Working Depth

The tilling depth should always be 1 to 2 inches in order to loosen the soil. Rock jamming could occur if the rotor depth is too great. Deeper tilling should only be done in an area that is rock free.

The attachment working depth can be changed by adjusting the tractor 3-point arm height, adjusting the length of the tractor's top link, or adjusting the attachment wheel supports.

Adjustment by tractor 3-point arms:
To adjust the attachment working depth by using the tractor's 3-point arm height, lower the 3-point arms to till deeper, or raise the 3-point arms to till shallower.

Adjustment by tractor top link:
Working depth can be adjusted adjusting the length of the tractor's 3-point top link (refer to tractor's operator's manual). Lengthening the tractor's top link will roll the attachment backwards onto the wheels and cause it to till shallower. Shortening the top link will roll the attachment forward and cause it to till deeper.

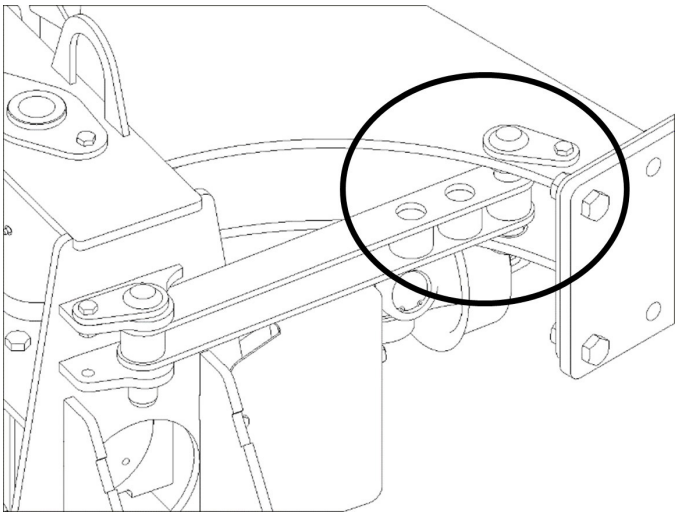


Adjustment by wheel supports:

1. Remove the hitch pin from the wheel support leg and set aside.
2. Adjust the wheel support leg to desired depth (refer to figure to right for corresponding depth in inches).
3. Reinstall the pin and safety clip in the wheel support leg.

OPERATING INSTRUCTIONS

Soil Conditioner Angle

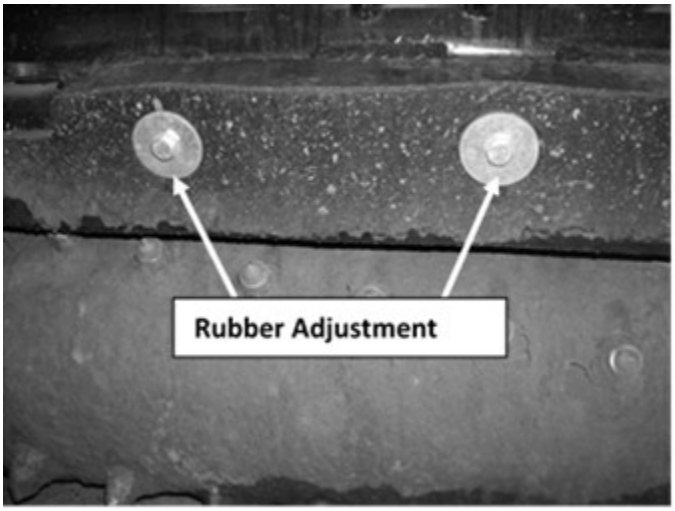


The attachment working angle can be adjusted manually or hydraulically depending on the model of the soil conditioner.

For manual angle adjustments, remove the pin from the left side of the soil conditioner frame and reinstall it in the middle hole for straight tilling or the outside holes for angled tilling to the left or right.

Hydraulic angle equipped soil conditioners utilize the tractor's auxiliary hydraulics. Use the tractor's auxiliary hydraulic controls to angle the soil conditioner to the left or right. Refer to your tractor's operator's manual for specific instructions on the auxiliary control location and operation.

Adjusting the Rubber Shield



The rubber shield can be adjusted up to 2", to better suit the type of soil you are tilling. To adjust the rubber shields, loosen all shield bolts, move the rubber shield to the desired location and retighten the bolts.

If the shield is higher when referenced to the drum, there is more material able to pass over the drum and discharge out the back of the attachment. The reverse effect is true when the shield is lower. (This is especially helpful when tilling in rocky conditions.)

Removing Obstructions from Rotor

If the rotor stops turning due to hydraulic relief, the overload could be caused by a rock or root caught in the attachment. In order to remove the obstruction, reverse the rotor. If this fails to remove the obstruction, throttle down the tractor, disengage the PTO drive, shut off the engine, engage the park brake, and remove the obstruction manually.

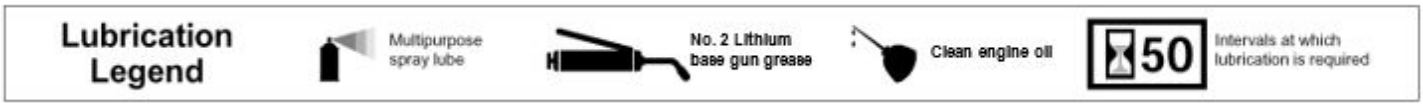
ROUTINE MAINTENANCE

⚠ 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.

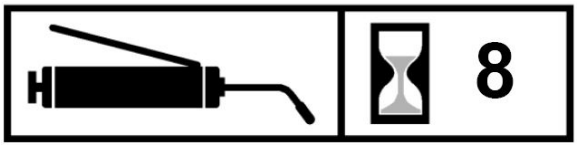
It is the operator's responsibility to make daily inspections of the tractor and attachment for damage, loose bolts, fluid leaks, or anything else that could cause a potential service or safety problem. Preventive maintenance is the easiest and least expensive type of maintenance.

IMPORTANT: Bolts and set screws can loosen after initial usage. After the first hour of operation check all bolts and set screws. Continue to check for loose hardware every **10 hours** of operation.

LUBRICATION



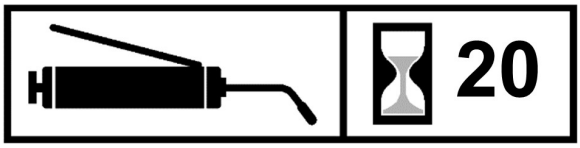
Use No. 2 lithium base gun grease when lubricating all attachment grease fittings.



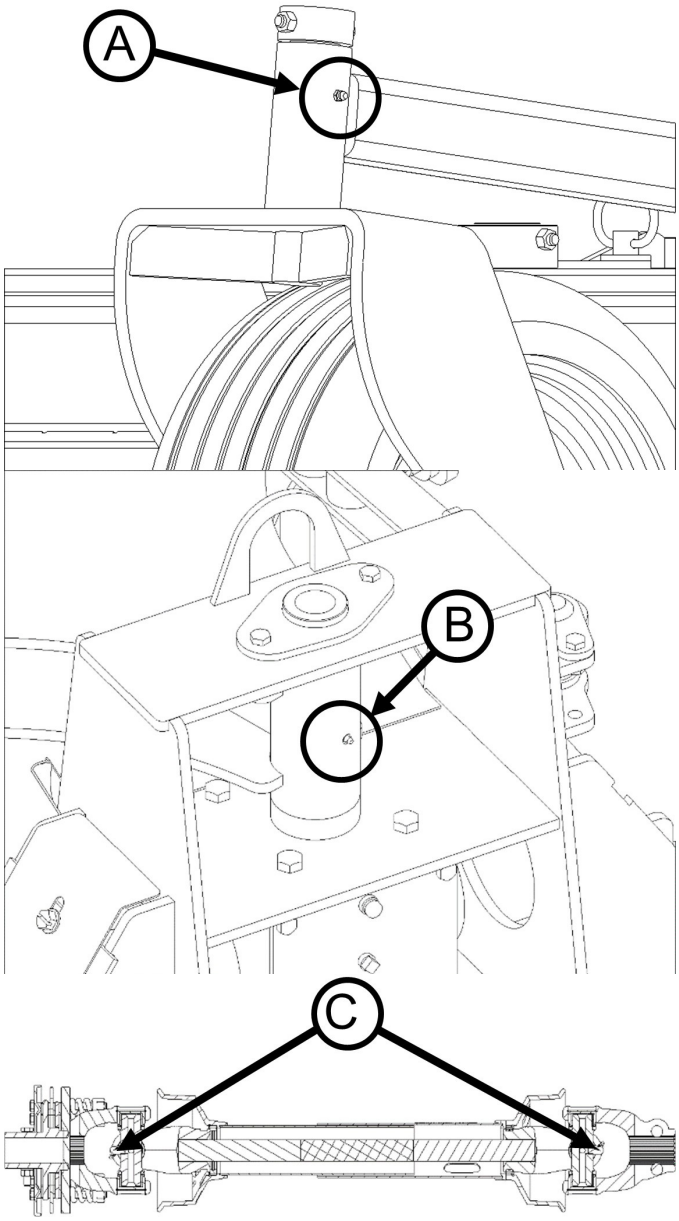
Grease the (2) caster wheel bushings **[A]** after every **8 hours** of operation.

Grease the center pivot bushing **[B]** after every **8 hours** of operation.

Grease the driveline u-joints **[C]** after every **8 hours** of operation.

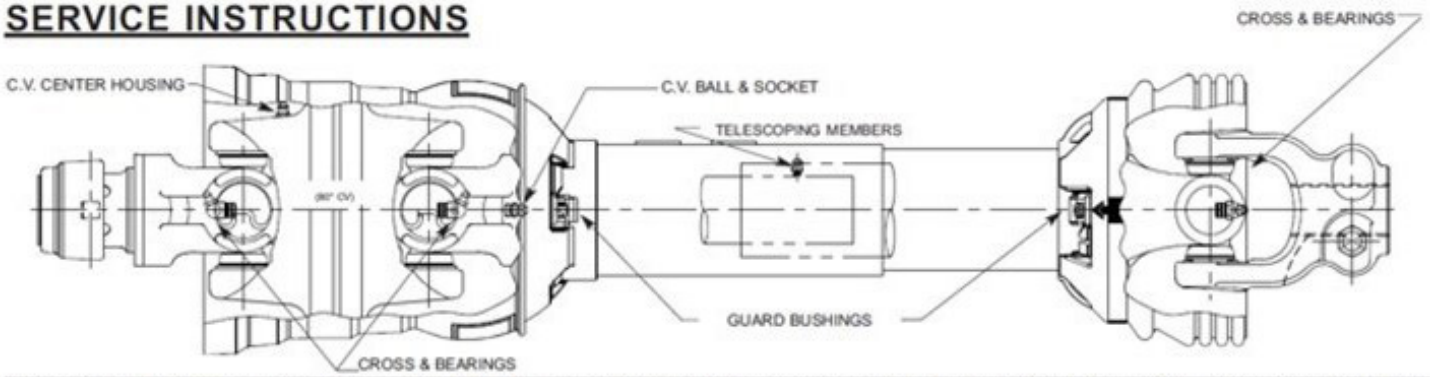


Clean profile of inner tube of driveline, coat with a light film of grease, and reassemble every **20 hours** of operation.



ROUTINE MAINTENANCE

SERVICE INSTRUCTIONS



LUBRICATE ALL FITTINGS WITH A GOOD QUALITY LITHIUM SOAP COMPATIBLE E.P. GREASE MEETING THE N.L.G.I. #2 SPECIFICATIONS AND CONTAINING NO MORE THAN 1% MOLYBDENUM DISULFIDE.

AN E.P. GREASE MEETING THE N.L.G.I. #2 SPECIFICATIONS AND CONTAINING 3% MOLYBDENUM DISULFIDE MAY BE SUBSTITUTED IN THE TELESCOPING MEMBERS ONLY.

LOCATION	STANDARD INTERVAL	EXTENDED LUBE INTERVAL	LEVER ACTION PUMPS
CROSS & BEARINGS	*8 HRS.	50 HRS.	5
TELESCOPING MEMBERS	8 HRS.	50 HRS.	8-10
CV BALL & SOCKET	*8 HRS.	50 HRS.	5
CV CENTER HOUSING	24 HRS.	50 HRS.	30
CE & NON-ROTATING GUARD BUSHINGS (1000 RPM MAX.)	8 HRS.	50 HRS.	5

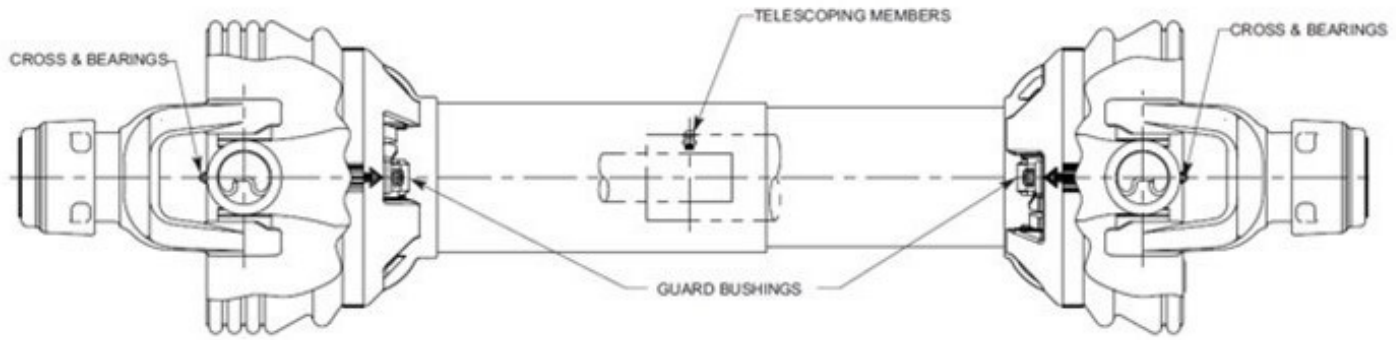
**CONSTANT ANGLE APPLICATIONS MAY REQUIRE A LUBE INTERVAL OF 4 HOURS*

ROTATING GUARD BUSHINGS SHOULD BE LUBRICATED UPON REPLACEMENT

CAUTION!! REPLACEMENT PARTS ARE NOT LUBRICATED

REPLACEMENT PARTS MUST BE LUBRICATED AT TIME OF ASSEMBLY AND DURING USE PER THE LUBE RECOMMENDATIONS

SERVICE INSTRUCTIONS



LUBRICATE ALL FITTINGS WITH A GOOD QUALITY LITHIUM SOAP COMPATIBLE E.P. GREASE MEETING THE N.L.G.I. #2 SPECIFICATIONS AND CONTAINING NO MORE THAN 1% MOLYBDENUM DISULFIDE.

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LOCATION	STANDARD INTERVAL	EXTENDED LUBE INTERVAL	LEVER ACTION PUMPS
CROSS & BEARINGS	*8 HRS.	50 HRS.	5
TELESCOPING MEMBERS	8 HRS.	50 HRS.	8-10
CE & NON-ROTATING GUARD BUSHINGS (1000 RPM MAX.)	8 HRS.	50 HRS.	5

**CONSTANT ANGLE APPLICATIONS MAY REQUIRE A LUBE INTERVAL OF 4 HOURS*

ROTATING GUARD BUSHINGS SHOULD BE LUBRICATED UPON REPLACEMENT

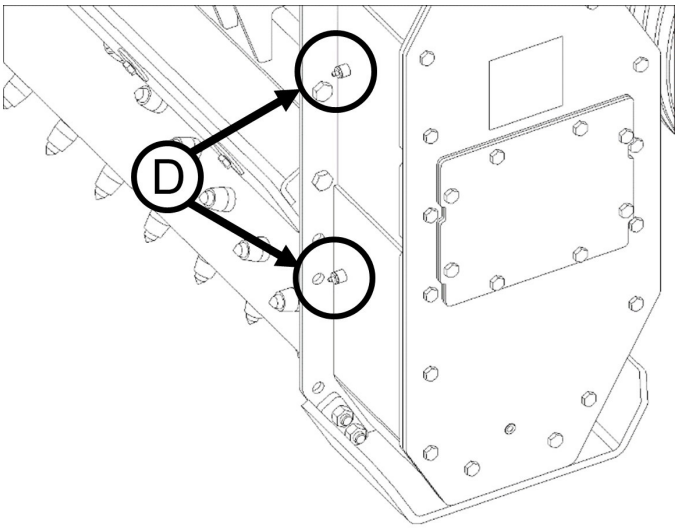
CAUTION!! REPLACEMENT PARTS ARE NOT LUBRICATED

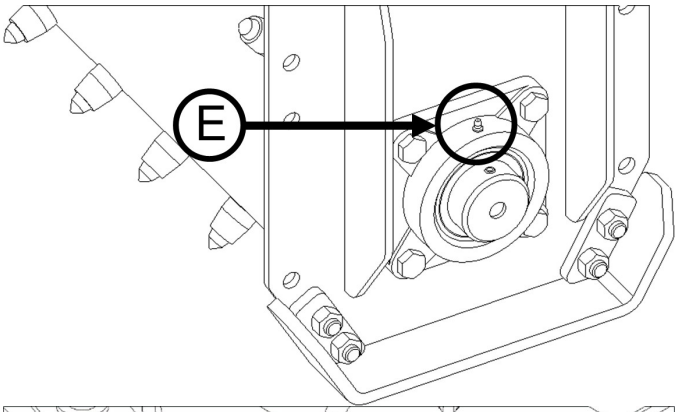
REPLACEMENT PARTS MUST BE LUBRICATED AT TIME OF ASSEMBLY AND DURING USE PER THE LUBE RECOMMENDATIONS

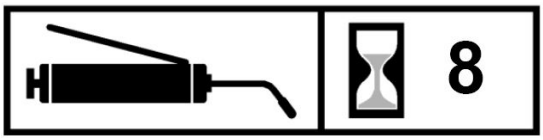
ROUTINE MAINTENANCE

Grease the rotor and sprocket bearings located on the chain case **[D]** and on the opposite side plate **[E]** after every 80 hours of operation.

IMPORTANT: Do not over-grease bearings. Only add **two pumps** of grease to each bearing every greasing interval.

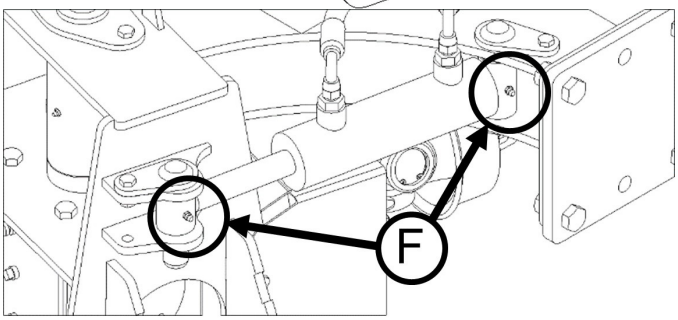






Grease the cylinder bushings **[F]** after every **8 hours** of operation.

NOTE: Applies to models with hydraulic angle package installed.



Repack each caster wheel bearing **annually** using the following steps:

1. Remove each wheel from caster by removing cotter pin, slotted nut, and axle pin.
2. Clean all bearing components and repack using high quality grease.
3. Reassemble all bearing components and install new seals.
4. Reinstall each wheel in caster by reinserting the axle pin and reinstalling the slotted nut and cotter pin.

ROUTINE MAINTENANCE

Chain Case Maintenance

Tension the chain after every 100 hours of use.
To tension the chain:

1. Remove the chain case cover by removing the chain case cover bolts as shown.

2. Loosen the jam nut using a 3/4” wrench.

3. Tighten the tension bolt until the chain is properly tensioned. Proper tension is achieved when the chain can be indented approximately 3/8” when pushing in the direction and location shown.

4. Retighten the jam nut.

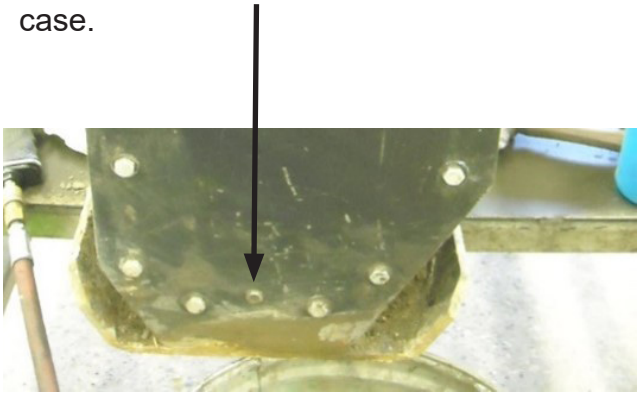
5. Clean the chain case flange and the chain case cover thoroughly to remove any debris.

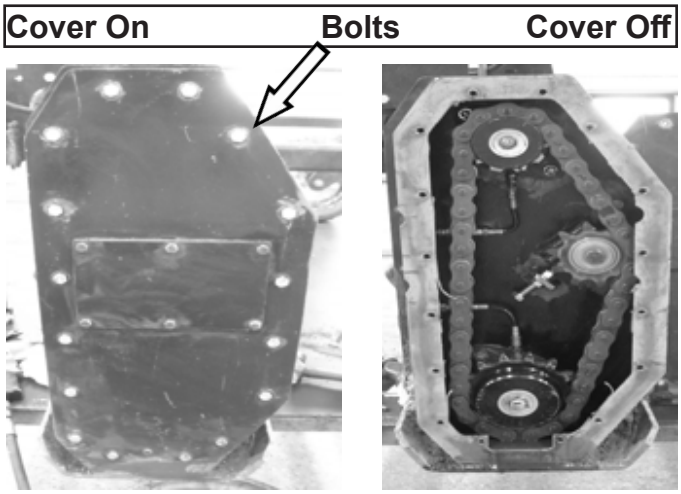
6. Apply a 1/2” thick bead of silicone around the chain case flange and chain case cover.

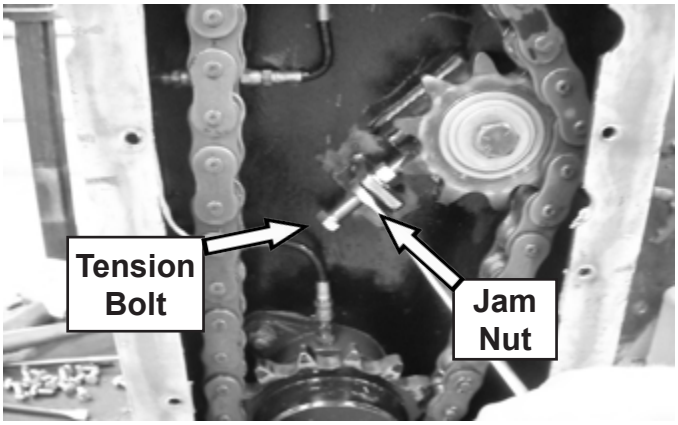
7. Place the cover on the flange in reinstall the chain case cover bolts. Tighten the bolts to create a tight seal between the cover and the flange.

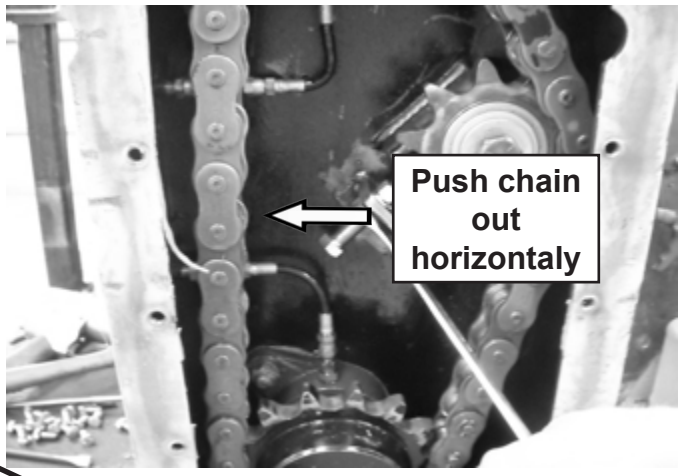
8. Remove any excess silicone that seeps out from between the cover and the flange.

9. Through the fill hole at the top of chain case add 36oz of 80/90 gear lube to chain case. Fill only to the port at the bottom of chain case.



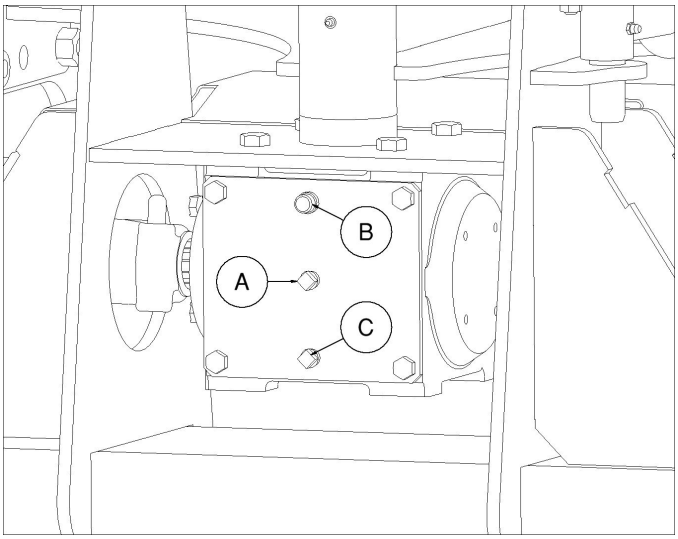






ROUTINE MAINTENANCE

Gearbox Fluid Check and Fill



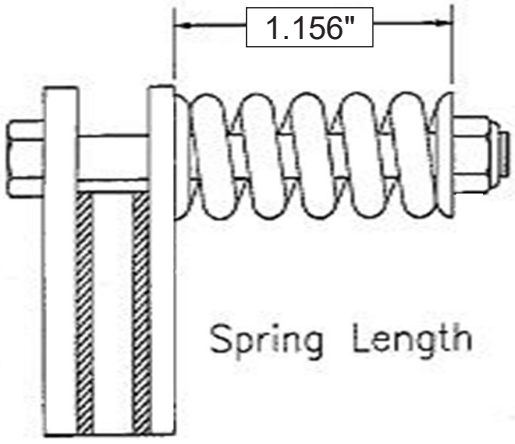
Add 80W-90 EP or 85W-140 EP gear lube to gearbox as needed. Oil capacity is approximately 40 oz.

To check the oil level, position the attachment flat on the ground, stop the engine, and engage the park brake. Remove the level check plug [A]. Oil must be level with the check plug hole. To add oil, remove the fill plug [B] and add lube until it starts to come out of the check plug hole. Reinstall the check plug and the fill plug.

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 correct disposal methods.

Slip Clutch Adjustment

⚠ CAUTION Slip clutch may be hot. Allow clutch to cool before servicing.



1. The slip clutch is factory preset to the correct torque for protecting the attachment and tractor. For adjustment, use the following steps.
2. Loosen all eight clutch bolts to remove all tension from the springs.
3. Hold the clutch hub solid and turn the shaft to make sure the clutch slips. If the clutch does not slip, disassemble the clutch and clean with a clutch cleaning solution.
4. Reassemble the clutch once cleaned.
5. Tighten each of the eight bolts until the springs are all evenly compressed to 1-5/32”.

IMPORTANT: Do not over tighten the clutch bolts. Over tightening can lead to severe damage or failure of the attachment.

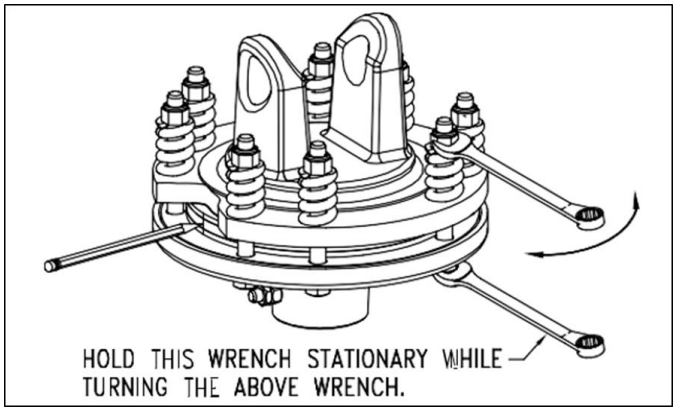
IMPORTANT: If the clutch continues to slip excessively when the springs are compressed to 1-5/32”, check the friction discs for excessive wear. Discs are 1/8” thick when new. Replace discs after there is 1/16” wear.

ROUTINE MAINTENANCE

Slip Clutch Burnishing

⚠ CAUTION Slip clutch may be hot. Allow clutch to cool before servicing.

The slip clutch must be able to slip during operation to protect the gearbox, driveline, prime mover, and other driveline components. To prevent driveline and gearbox damage, burnish the slip clutch prior to initial operation and after long periods of inactivity.



1. Using a pencil or other marking tool, scribe a line across the exposed edges of clutch plates and friction disks.
2. Measure the length of each spring.
3. Carefully loosen each of the 8 spring retainer nuts by exactly 2 revolutions. It will be necessary to hold the hex end of the retainer bolt to count the exact number of revolutions.
4. Start tractor and engage driveline for 2-3 seconds to permit slippage of clutch plate and disk surfaces. Disengage the driveline and re-engage a second time for 2-3 seconds.
5. Ensure the engine is off, parking brake is set, and all components have come to a complete stop.
6. Inspect clutch and ensure that the scribed markings made on the clutch plates have changed position. Slippage has not occurred if any two marks on the friction disk and plate are still aligned.
7. Tighten each of the 8 spring retainer nuts on the clutch housing exactly 2 revolutions to restore clutch to its original setting pressure.
8. Verify the length of each spring. If measurements were not taken, use a length of 1-5/32”

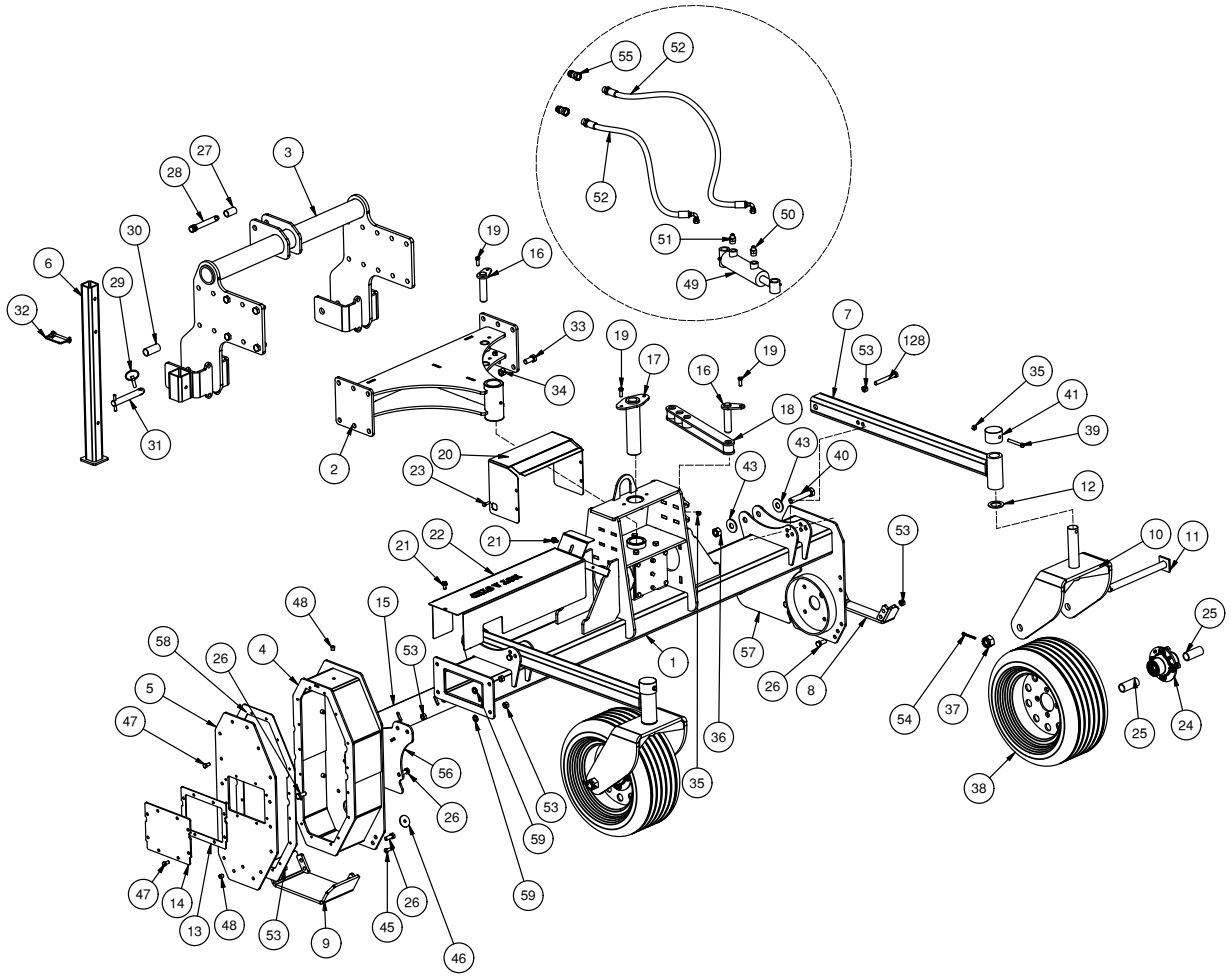
IMPORTANT: Do not over tighten the clutch bolts. Over tightening can lead to severe damage or failure of the attachment.

PARTS INFORMATION

ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
1	1	420012	FRAME MAIN 3PT 72" W/A	
	1	420002	FRAME MAIN 3PT 84” W/A	
	1	340402	FRAME MAIN 3PT 96” W/A	
2	1	420001	PIVOT PIECE W/A	
3	1	420000	3 PT ATTACH W/A	
4	1	424026	HOUSING CHAIN W/A	
5	1	420082	COVER CHAIN CASE PAINTED	
6	1	310589	JACK STAND LEG W/A	
7	2	420008	ARM WHEEL W/A	
8	1	420007	RIGHT SHIELD SKID SHOE W/A	
9	1	420006	LEFT SHIELD SKID SHOE W/A	
10	2	317055	CASTER W/A	
11	2	317133	WHEEL AXLE PAINTED	
12	2	201325	WASHER MB 1 1/2 10 GA NARROW	
13	1	420092	RUBBER GASKET	
14	1	420093	PLATE COVER SMALL PAINTED	
15	1	420017	SHIELD RUBBER 72	
	1	420016	SHIELD RUBBER 84	
	1	340412	SHIELD RUBBER 96	
16	2	400041	PIN 1 X 4 W/A	
17	1	420010	PIVOT PIN W/A Z	
18	1	420009	MANUAL ANGLE W/A	
19	4	13105	BOLT HEX	3/8 X 1 NC GR 5
20	1	420085	SHIELD DRIVELINE PAINTED	
21	2	32467	BOLT FLG THRD RLNG	3/8 X 3/4 NC
22	1	420084	SHIELD OUTPUT SHAFT 72 PAINTED	
	1	420083	SHIELD OUTPUT SHAFT 84 PAINTED	
	1	340428	SHIELD OUTPUT SHAFT 96 PAINTED	
23	4	13055	BOLT HEX	5/16 X 1 NC GR 5
24	2	317105	HUB WHEEL 4-BOLT W/ZERK	
25	4	317103	BUSHING 1.25 X 1.02 X 3.00 Z	
26	12	13207	BOLT HEX	1/2 X 1 1/4 NC GR 5
	4	13207	BOLT HEX 1/2 X 1 1/4 NC GR 5	**OPT WING PKG ONLY**
27	1	420070	BUSHING 1.00 x .78 x 1.75 Z	
28	1	300460	PIN 3-PT CAT1 TOP 3/4 X 3-7/8	
29	3	104432	PIN LYNCH 7/16	
30	2	420069	BUSHING 1.13 x .91 x 2.50 Z	
31	2	300583	PIN LOWER CAT 1	
32	1	300581	PIN SNAPPER 5/16" X 3"	
33	8	13309	BOLT HEX	5/8 X 1 1/2 NC GR 5
34	8	37216	NUT HEX LOCK	5/8 NC
35	6	37212	NUT HEX LOCK	3/8 NC
36	2	37217	NUT HEX LOCK	3/4 NC
37	2	313850	NUT CASTLE 1" - 14 UNS PLATED	
38	2	317056	WHEEL/TIRE POLYUR 18 X 8.50-12	
39	2	13114	BOLT HEX	3/8 X 2 3/4 NC GR 5

PARTS INFORMATION

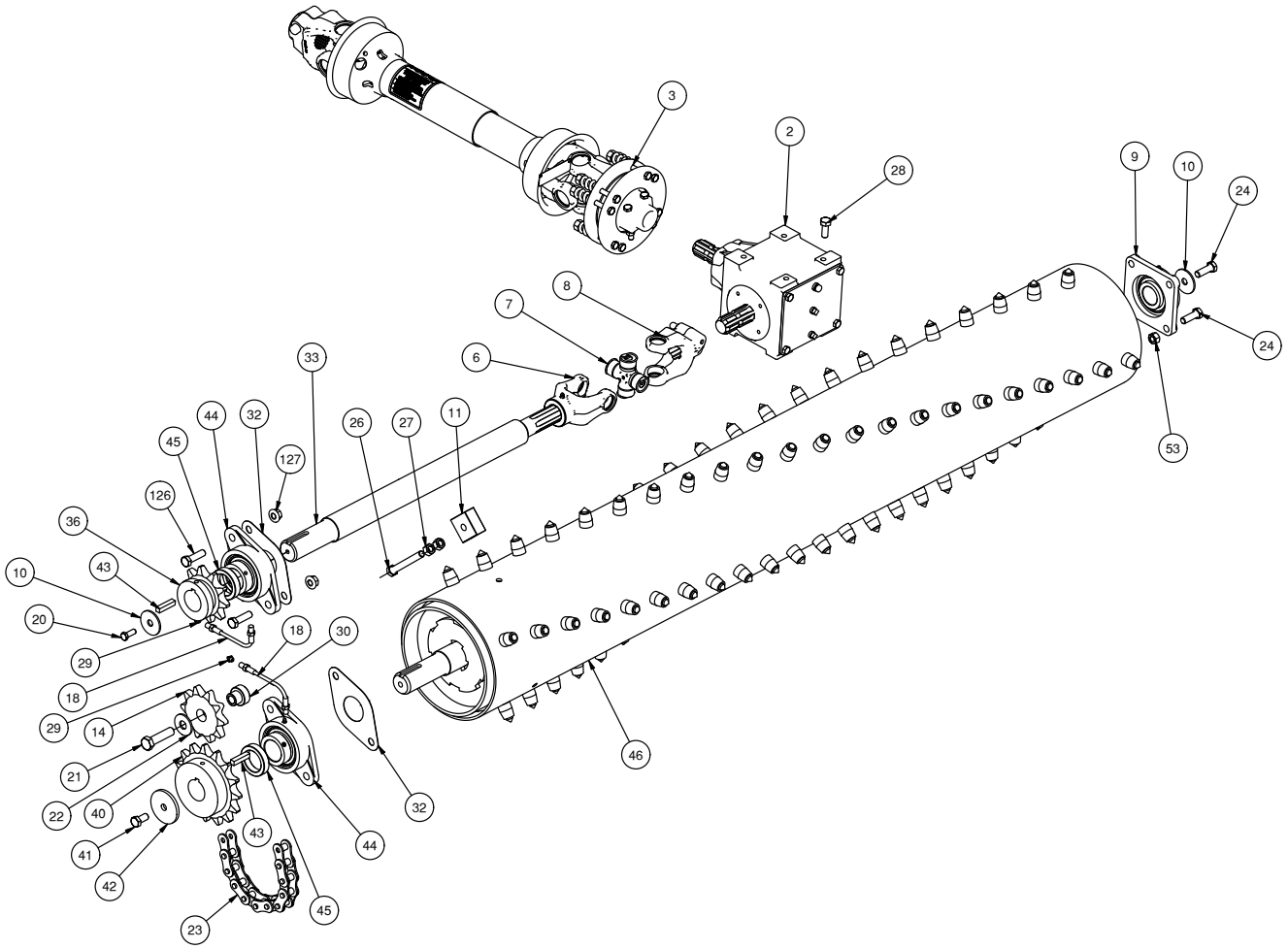
ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
40	2	13369	BOLT HEX	3/4 X 4 NC GR 5
41	2	317101	BUSHING 2.25 X 1.52 X 1.00 W/H Z	
42	2	201929	PIN LIFT ARMS 1/2 X 3-1/2	
43	4	33018	WASHER FLAT USS 3/4	
45	9(72”) 11(84”) 12 (96”)	13107	BOLT HEX	3/8 X 1 1/4 NC GR 5
46	10(72”) 12(84”) 13(96”	202830	WASHER LARGE 3/8 X 1 3/4	
47	24	13103	BOLT HEX	3/8 X 3/4 NC GR 5
48	2	101631	PLUG SOLID 1/4 NPT PLUGS 3/4 TAP	
49	1	400074	CYLINDER 2 X 4 W/BUSHINGS	**HYD OPTION ONLY**
50	1	201925	ADPT STR 8MB-6MJ	**HYD OPTION ONLY**
51	1	300404	ADPT STR 8MB-6MJ ORFICE .030	**HYD OPTION ONLY**
52	2	420087	HOSE 3/8 X 63 8MP-6FJX-90	**HYD OPTION ONLY**
53	12	37214	NUT HEX LOCK 1/2 NC	
	4	37214	NUT HEX LOCK 1/2 NC	**OPT WING PKG ONLY**
54	2	65127	PIN COTTER 3/16 X 2	
55	2	320623	COUPLER HYD 1/2-8FP M PPT	**HYD OPTION ONLY**
56	1	319152	WING LH NEW W/A	**OPT WING PKG ONLY**
57	1	319149	WING RH NEW W/A	**OPT WING PKG ONLY**
58	1	420004	GASKET RUBBER CHAIN CASE	
59	2	33158	WASHER BOND SEAL 1/2 GALV	
128	2	13219	BOLT HEX	1/2 X 4 NC GR 5



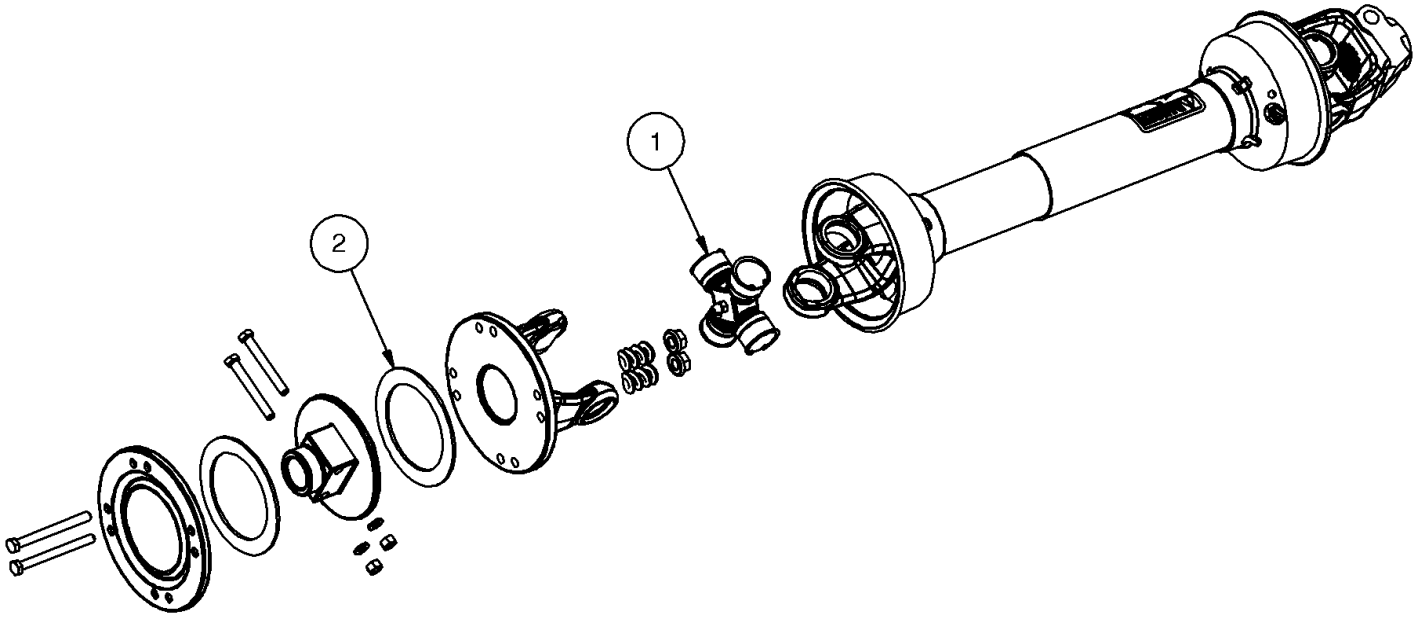
PARTS INFORMATION

ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
2	1	420048	GEARBOX R/A MR400 PAINTED	(420062 UNPAINTED)
3	1	420072	FRONT DRIVELINE ASSY	
5	1	420073	YOKE ASSM S5 (1-3/8) 6T X 6T X 9	
7	1	320385	REPAIR KIT U-JOINT 35S	PART OF 420073
9	1	319085	BRG 1-1/2 F-BOLT FLG B-TYPE	
10	2	317287	WASHER FENDER 1/2" X 2" X 1/8"	
11	1	420063	BLOCK MOUNT	
14	1	420077	SPROCKET 100B10 X 1 B IDLER	
18	2	420089	HOSE 2HLB x 6.75” 2MPX 2MPX CY	
19	1	202830	WASHER LARGE 3/8 X 1-3/4	
20	1	103116	BOLT HEX 3/8 X 1 NC GR 5	**(APPLY THRDLOCKER)**
21	1	13314	BOLT HEX 5/8 X 2-3/4 NC GR5 Z	
22	1	33016	WASHER FLAT	5/8”
23	1	420067	CHAIN ROLLER NO 100 X 42P W/ CO	
24	5	13209	BOLT HEX 1/2 X 1-1/2 NC GR 5	**(APPLY THRDLOCKER TO SHAFT END)**
25	4	37214	NUT HEX LOCK	1/2 NC
26	1	13826	BOLT HEX TAP 1/2 X 4 GR5	
27	2	36110	NUT HEX FULL	1/2 NC
28	4	38706	BOLT 12MM 1.75 X 308.8 HCS Z	
29	2	60102	ZERK GREASE 1/8 NPT STR	
30	1	420076	BUSHING IDLER CHAIN	
32	1	420014	GASKET RUBBER BEARING	
33	1	424017	SHAFT OUTPUT 2 X 30.28 KEYED	REV
	1	424018	SHAFT OUTPUT 2 X 36.28 KEYED	REV
	1	424019	SHAFT OUTPUT 2 X 42.28 KEYED	REV
36	1	424016	SPROCKET 100B10 X 1-2/4 B HT	REV
38	1	424026	HOUSING CHAIN W/A V2	REV
40	1	424013	SPROCKET 100B15 1-3/4 KEYED	REV
41	1	13205	BOLT HEX 1/2 X 1 NC GR5 Z	**REV (APPLY THRDLOCKER)**
42	1	314656	WASHER PLATE .53 X 2.75 X .25 Z	REV
43	2	424014	KEY SQ 3/8 X 1-3/4	REV
44	2	424008	BRG 1-3/4 2B FLG (L TYPE)	REV
45	2	424015	BUSHING 2.5 X 1.78 X .56 Z	**REV**
46	1	424023	ROTOR 3 PT 72 KEYED W/A	REV
	1	424024	ROTOR 3 PT 84 KEYED W/A	REV
	1	424025	ROTOR 3 PT 96 KEYED W/A	REV
126	4	15210	BOLT HEX 1/2X1-3/4 GR 8	**ADD THRDLOCKER AND TORQUE TO 117-125 FT-LBS**
127	4	0167011	NUT FLNG ½ GR 8	**ADD THRDLOCKER AND TORQUE TO 117-125 FT-LBS**

PARTS INFORMATION



ITEM	QTY	PART NO.	DESCRIPTION	STOCK NO.
	1	420072	FRONT DRIVELINE ASSY	
1	2	420098	CROSS BEARING	
2	2	420090	PLATE FRICTION FOR 6" CLUTCH	



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	4700	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 ¼ and 5/16 inch series are in inch-pounds. All other torque values are in foot-pounds.

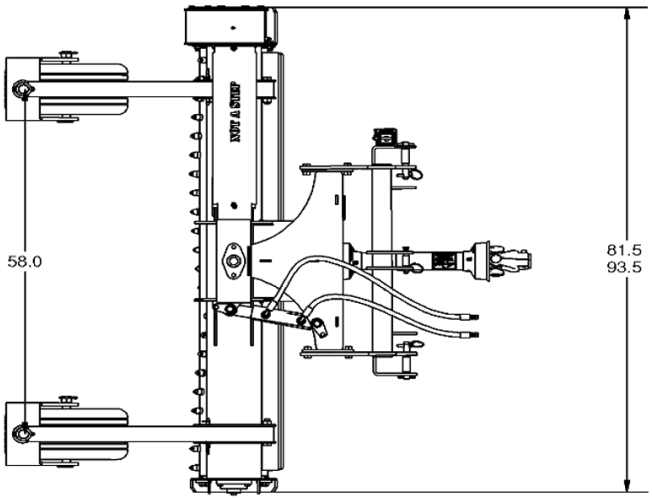
Torque values calculated from formula T = KDF

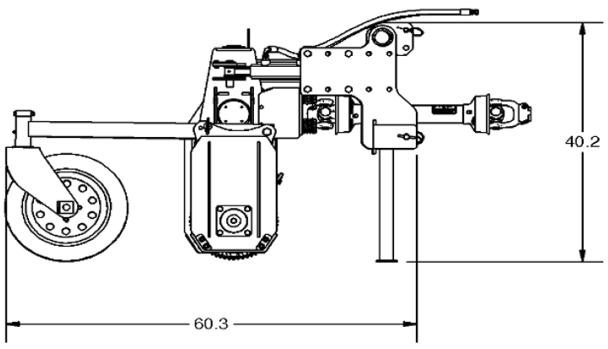
where: K=0.15 for “lubricated” conditions

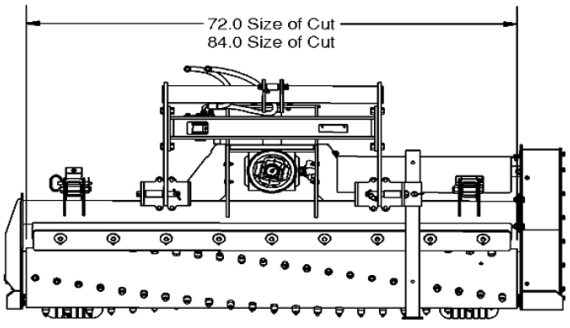
K=0.20 for “dry” conditions

GENERAL SPECIFICATIONS

Model	SC72	SC84	SC96
Rotor Width	72"	84"	96"
Angling	Manual 15°	Manual 15°	Manual 15°
Hydraulic Angling	Optional	Optional	Optional
Wheels/Tires	18 x 8.5 Polyurethane	18 x 8.5 Polyurethane	18 x 8.5 Polyurethane
Teeth	88 Carbide	104 Carbide	120 Carbide
Hitch Category	CAT 1 & 2	CAT 1 & 2	CAT 1 & 2
Rotor Speed	187 RPM	187 RPM	187 RPM
Operating Weight	1275 lbs.	1350 lbs.	1425 lbs.







TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Poor soil contioning performance	Driveline clutch slipping excessively	check slip clutch friction plates for wear (see "Routine Maintenance" page 20)
	Improper chain tension	Check chain tension and adjust if needed (see "Routine Maintenance" page 19)
	Poor operating technique	Follow "Operating Instructions" on pages 13-15 and adjust conditioner settings as needed. Gaining More experience operating the attachment will make it easier to achieve the desired result
3-point hitch does not line up correctly with tractor	Attachment 3-point hitch may need adjustment to fit specific tractors	Adjust attachment 3-point hitch using “Set-Up Assembly” instructions on page 8.
Driveline is too short	Attachment 3-point hitch may need to be adjusted to fit specific tractors or if quick hitch is used.	Adjust attachment 3-point hitch using “Set-Up Assembly” instructions on page 8.
Driveline is too long	Attachment 3-point hitch may need to be adjusted to fit specific tractors.	Adjust attachment 3-point hitch using “Set-Up Assembly” instructions on page 8.
	Attachment driveline may need to be shortened to fit specific tractors.	Follow “Instructions for Shortening the Driveline” on page 12.
Hydraulic couplers do not engage	Attachment couplers and tractor couplers not compatible	Attachment is shipped with universal pioneer couplers. Check tractor’s operator’s manual for tractor coupler type to verify that they match.

NOTES

NOTES

LIMITED WARRANTY

Quick Attach 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 Direct Outlet locations, 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, Direct Outlet, Quick Attach 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.

Quick Attach 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 Quick Attach Attachments, LLC has any authority to bind Quick Attach 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 be an executive officer of Quick Attach Attachments, LLC to improve its products whenever it is possible and practical to do so. Quick Attach 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.

Quick Attach Attachments, LLC
P.O. Box 128 Alexandria, MN 56308
Phone (320) 759-1551
Fax (320) 759-1590

MN. USA

QUICKATTACH

AMERICAN INNOVATION

SINCE 1948

3PT SOIL CONDITIONER
Manual P/N 420088
Quick Attach LLC

Rev F 11/25/2025
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