

AGT Industrial

Product manuals

Skid Steer Heavy Duty Forestry Mulcher
Model:AGT-SSF81

Ver.1.1.4



PRODUCT MANUAL

Skid Steer Heavy Duty Forestry Mulcher

Model:AGT-SSFM81



- ◆ Please read the product manual completely before assembly
- ◆ Check against the parts list to make sure all parts are received
- ◆ Wear proper safety goggles or other protective gears while in assembly

Missing parts or questions on assembly?
Please contact sales@agrotkindustrial.com

<https://www.agrotkindustrial.com/>

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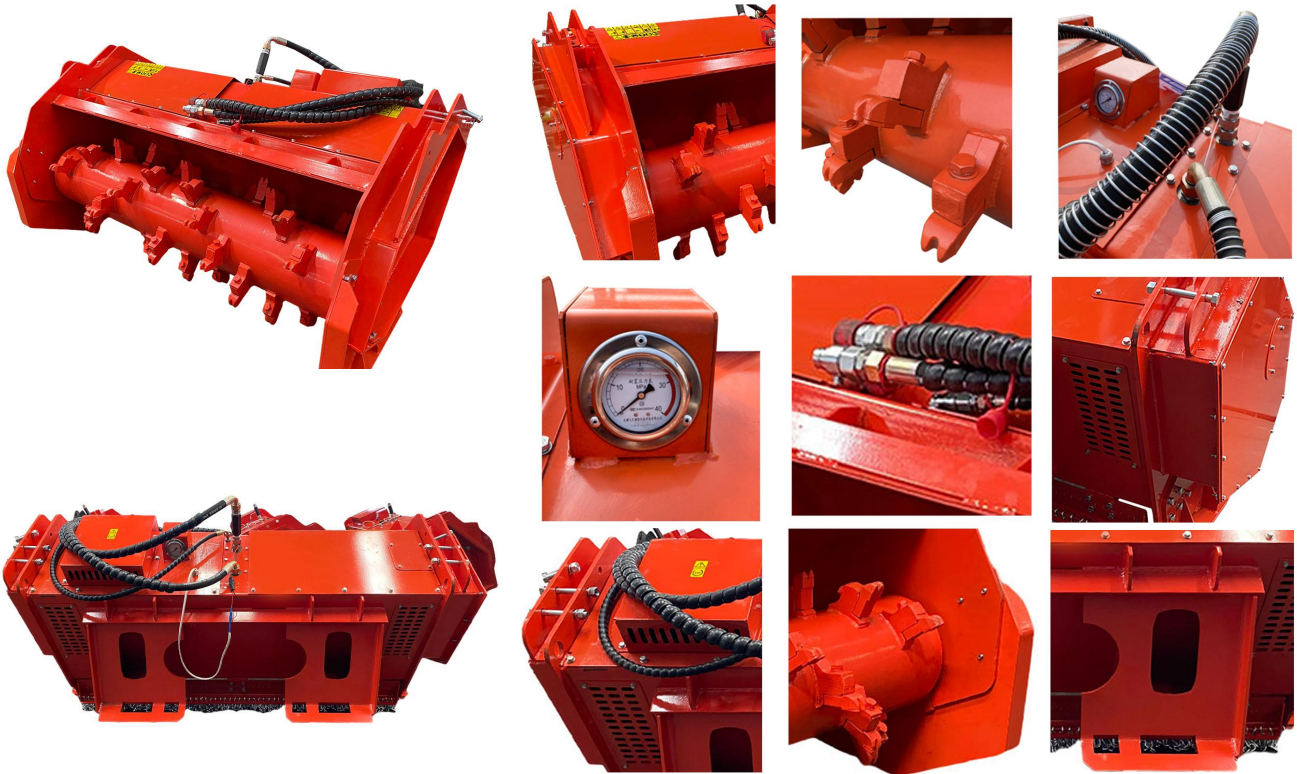
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Product introduction



1. Triple helix claw teeth layout for hardwood, stumps, and branches. Hydraulic hoses and ½" flat-faced couplers.
2. Heat-treated, bolt-on forged alloy teeth. Rear chain safeguard. Manually adjustable push bar.
3. Hydraulic axial piston motor and synchronous belt drive system.
4. Pressure gage, radiator, and independent cooling system.
5. Oil bathtub lubrication bearing system. Sealed transmission chamber to protect belts, pulleys, and key components.

Operator

Congratulations on owning this Skid Steer Heavy Duty Forestry Mulcher! Your Skid Steer Vibratory Roller Attachment are carefully designed and manufactured to provide you with years of reliable service.

Your SSkid Steer Heavy Duty Forestry Mulcher will need some minor maintenance to keep it in excellent working condition.
Please follow all safety precautions and maintenance procedures described in this manual.

Please read and understand the instructions in this manual carefully before operation.
Please refer to the "Safety Labels" section for all instructions noted above.
No one is allowed to operate his equipment who has not fully read and understood this manual and has not been trained in safe deposit box operations.

Remember to use only parts replaced by the manufacturer.
Replacement parts may not meet the standards required for safe and reliable operation.

Safety precautions

BEFORE OPERATION

1. The operator must read the operation manual carefully before installation, operation or maintenance. Improper operation will cause the machine damaged or the operator dead.
2. Read all the safe signs and safe declarations. Obey all the professional safe terms, local laws or the professional directions.
3. Familiar with the duty Skid Steer Vibratory Roller Attachment about functions, specs and operation. Replace the to-be-damaged parts in time. Make sure all the hydraulic installations and couplings connect firmly, and all the safe signs stick on the suitable positions clearly.

ALWAYS watch for overhead power lines.

NEVER operate a mechanical device when a bystander is within 300 feet of your work area. Flying debris can cause serious injury or even death.

- NEVER position your body or limbs under an unsupported cutter deck.
- DO NOT allow this machine to contact buildings, utilities, large rocks or tree stumps or you may lose control of the skid steer loader.
- NEVER use drugs or alcoholic beverages while operating or servicing this machine.
- ALWAYS operate this attachment during daylight or well-lit areas.
- To prevent the skid steer loader and implement from rolling forward, stop the engine and set the parking brake when exiting the skid steer loader.
- Inspect implement for missing hardware prior to using this machine.
- DO NOT allow children to play on or around this equipment at any time. Store this implement in an area not frequented by children.
- ALWAYS wear the proper personal protection equipment while operating or servicing this machine. NEVER operate or service this machine with bare feet, sandals, or other light footwear.
- ALWAYS wear work gloves when handling cutter blades as they are often very sharp.
- ALWAYS use eye protection while operating or servicing this machine.
- DO NOT speed! Keep your driving speed between 2 and 5 mph.



Wear appropriate safety glasses, goggles or face masks Control Forestry Skid Steer Heavy Duty Forestry Mulcher work, or any operation caused by dust, flying Debris, or any other hazardous material.

Technical parameters

Model:	SSFM81
Minimum Loader Power Required:	75HP
Cut Capacity:	8" Diameter
Rotor Diameter:	12" (w/o teeth), 24"(w/teeth)
Flow :	>30 GPM
Total length:	86.7"
Total width:	47.2"
Total height:	51.2"
Maximum Pressure:	3045 Psi
Cut Depth:	4.0"
Mulching Teeth:	39
Rotary Tillage Ground Depth:	3.93"
Blade (PCS):	39
Working Width:	61"
Shipping weight:	2292.8 lbs

Work environment:

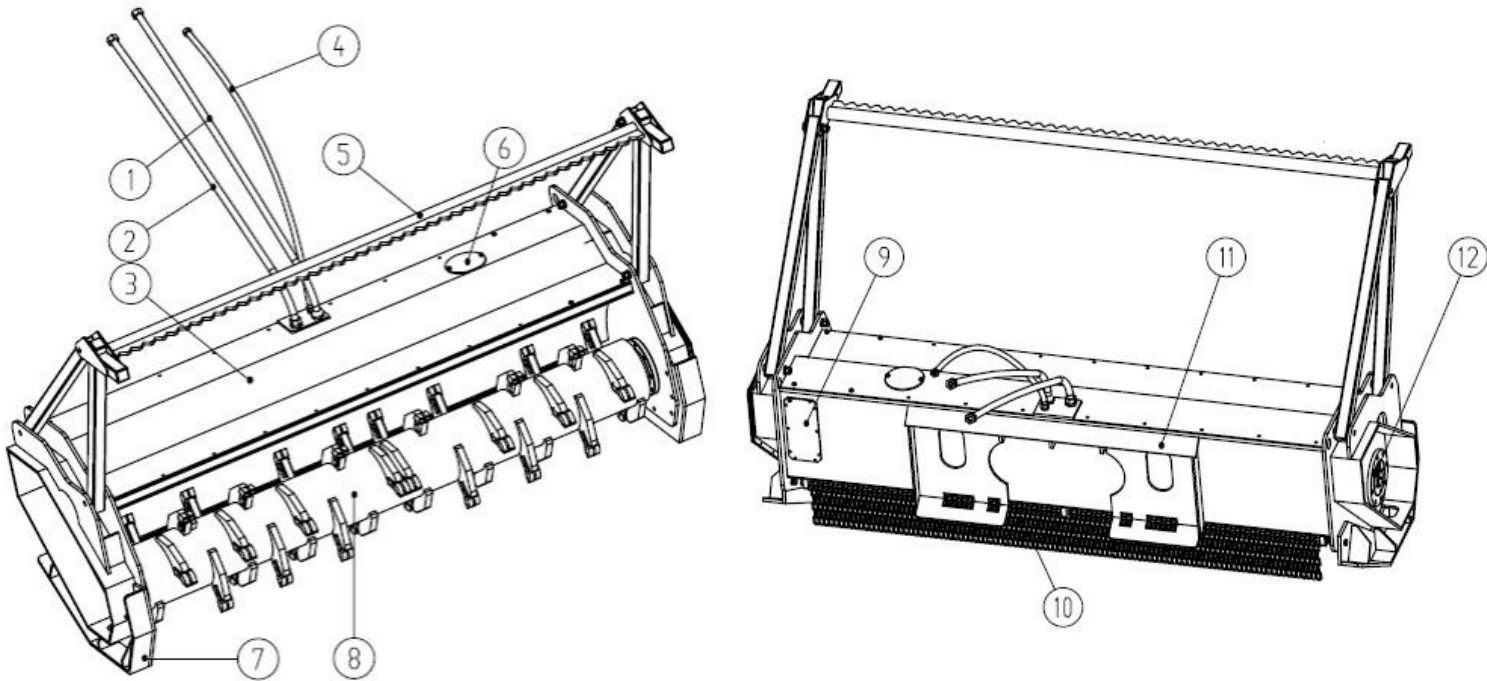
Temperature: - 20 ~ 50 °C

Height: 100 meters or less

Relative humidity :≤85%



Technical parameters



S/N	PART DESCRIPTION	QTYS	NOTE
1	Oil inlet	1	
2	Oil return pipe	1	
3	Upper cover plate	1	
4	Oil outlet	1	
5	Forward press bar	1	
6	Motor displacement adjustment plate	1	
7	Wear plate	1	
8	Cutting drum	1	
9	Checking port	1	
10	Protection chain	1	
11	Hitch frame	1	
12	Grease fitting	1	

Installation

Unpack and check

Check for missing or damaged components according to the packing list. If you have any questions, please contact the supplier. List of details As the table above:

Machine installation

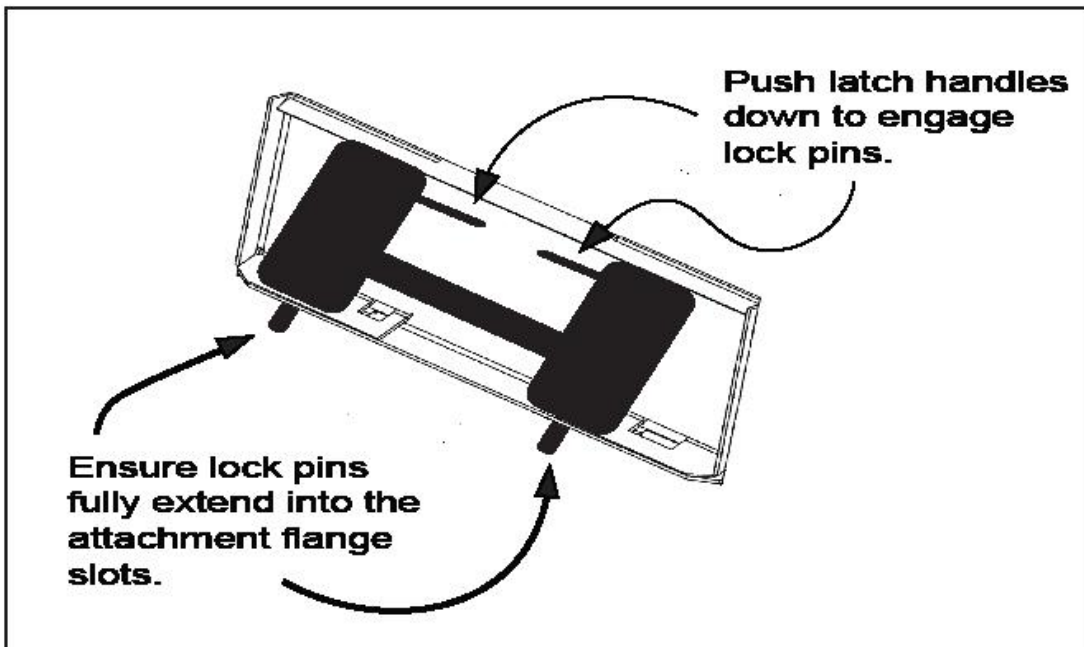
Equipment must be installed on a solid concrete floor or similar. If the ground is not firm, it will not be able to connect to the loader. There should be a space around the device for easy operation.

Connecting Vibratory Roller Attachment

Consult your skid steer operator's manual for specific instructions on how to connect your Forestry Disc Mulcher to your skid steer loader.

General Attachment Method

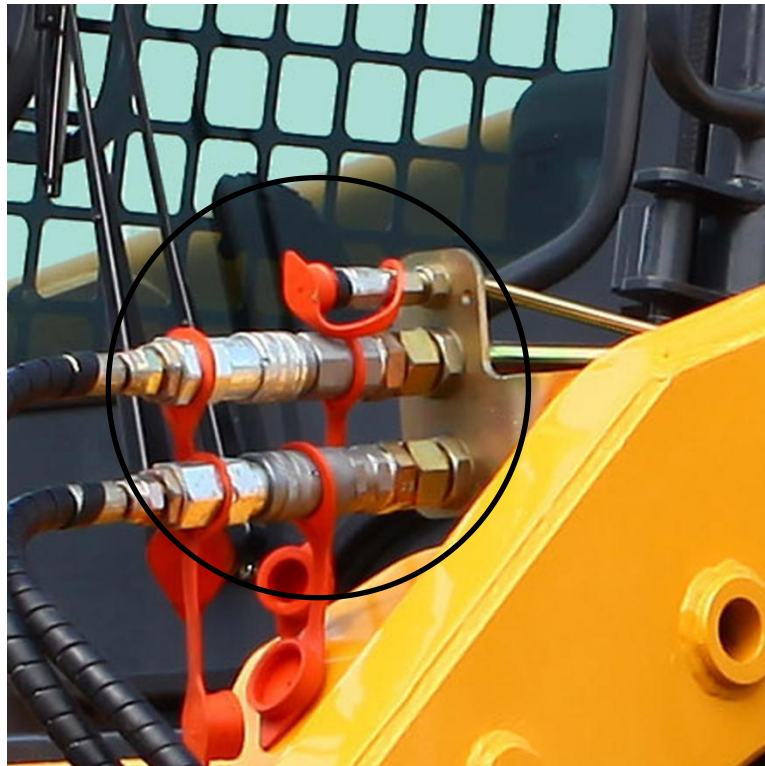
1. Make sure the hydraulic lines are clear from the front side of the Vibratory Roller Attachment attachment plate and that the locking pins on the skid steer mounting plate are retracted.
2. Drive forward and place top of skid steer mounting plate under the attachment mounting flange. See Figure below.
3. Slowly raise and tilt back the skid steer mounting plate until the Vibratory Roller Attachment attachment plate rests flat against the skid steer mounting plate.
4. Activate your skid steer's lever lock switch to engage and lock the pins into the flange slots of the brush cutter's attachment plate. If your skid steer does not have this switch, push the latch handles down until you can see the lock pins extend into the attachment flange.
5. Connect the attachment hydraulic hoses and the case drain hose (SBCNS model only) to the auxiliary supply couplers located on your skid steer loader lift arm.



Skid Steer Mounting Plate to Attachment Mounting Flange

Installation

Note: this drawing does not represent the appearance of the equipment
For actual purchase, this figure is only for installation location reference.



Oil pipe connection: Skid Steer Vibratory Roller Attachment is equipped with 3 oil pipes, which are return oil pipe, inlet oil pipe and outlet oil pipe. Connect the tubing to the loader tubing connection.

Installation

Safety Instruction

- (1) Before the installation, please be sure to read the manual
- (2) Before using this equipment it should to know its production or working capacity, its dimensions and operation steps.
- (3) Pay attention to the flying objects caused by the operation of this equipment, at the same time operator should be installed with the glasses, helmet and mask.
- (4) Under high pressure, hydraulic oil's leak will cause harm or even death to the staff, operators should as far as possible away from leaking oil pipeline .
- (5) Don't modify equipment, it can reduce machine's performance, Security and reliability.
- (6) Equipment working environment requirements; Flat ground, open vision.
- (7) Make sure this is no pollution in steps and armrest of the equipment.
- (8) When operating, be sure that this is nobody around the equipment;
- (9) Operator do not leave the machine when it working.
- (10) Isolating working area when working, avoid people and animals close to the machine and be hurt by cutting pieces.
- (11) When mulcher working for big trees, be careful of logs dumping backwards to the cab where operator working in.
- (12) Do not run this machine on steep hills, lest cause tilting.
- (13) Do not drunk when operating this machine .
- (14) Before operator leave the skid steer loader, make sure to put mulcher attachment fell to the ground, then close the skid steer engine and pull out its key.
- (15) Check all fasteners, make sure they has no loose phenomenon. Change the damage parts in time, and make sure all warning signs clear and clean, change them if damage happens.
- (16) Before every time usage, it should check whether the bolt fastening everywhere.

Handling safety

Operation Instruction

(1) Hydraulic motor displacement setting

This Mulcher attachment uses inclined shaft axial piston motor, the displacement of motor is manually adjustable. Displacement limit adjustment range is 15.8-54.8ml/r, and the limiting speed of the motor can be reached 5000r/min, but too high speed will reduce attachment working life, so this mulcher requires motor maximum output speed not to exceed 3000 r/min , mulcher motor's displacement adjustment range is adjusted to 30-54.8 ml/r in Factory.

The best flow range of host machine to provide to mulcher is 80— 150L/MIN, if less than 80L/MIN; mulcher work efficiency will be reduced, if more than 150 L/MIN, mulcher vibration will be intensified, then mulcher work life will be reduced. If host machine flow is more than 150 L/MIN, it should be considered to use the other larger displacement of hydraulic motor. The ideal rotational speed of cutting drum (see product structure instructions) is 1700-2000 r/min, in this speed range, the actual output.

① Description of Equipment Capability:

This mulcher model is used to clear high weeds, dense shrubs and trees with a diameter no more than 200mm. The host machine pressure not more than 35MPa.

② If mulcher uses on skid steer loader, please use high-flow tubing connection.

Please note: Cutting drum rotational direction is unidirectional, If mulcher tubes connect correctly, but cutting drum does not work, the engine of host machine needs to be idled until the cutting drum is operated, otherwise it need to replace tubing connectors location. (Turn off the host engine when replacing tubing connectors)

③ After opening the hydraulic motor, gradually increase flow to improve required speed to work, and ensure cutting drum speed is moderately during flow adjustment process.

④ Operate host machine to control mulcher both sides wearing plates touch with ground, then operator control mulcher toward destination and working, so this can achieve the best working results.

⑤ During operation, do not lift mulcher too high, so that the protection chain to lose the protective effect on the operator, because cutting pieces are easy to hurt the operator.

⑥ Do not forward host machine too fast, because fast speed not only makes the hydraulic system pressure of host machine too high, but also will make high fever.

⑦ If mulcher encounter obstacles in the work to be greater cutting force, but cutting drum does not rotate, the operator should remove the mulcher from cutting things, and then restore the cutting drum speed, adopt small cutting method for cutting the obstacles, and slow down host machine speed .

⑧ For cutting thicker trunks, when cutting drum cuts off 3/4 of trunks, use front compressive bar on the mulcher to touch with trunks, and then forward host machine to control front compressive bar to force the trunks break, it can protect operator will not be hit by broken trunk.

Handling safety

Maintenance Overview

The maintenance procedures described in this manual should only be carried out by qualified mechanics who have been trained to repair this machine.

Some procedures require special tools and skills to complete. **DO NOT** attempt to repair or perform service work on this machine unless you have the skills and tools to do so. Contact your local dealer for maintenance and repair services.

NOTICE

Improper maintenance or modifications to the design or performance of this machine will void the warranty. **ONLY** use genuine SPARTAN EQUIPMENT replacement parts on this machine.

Safety Instructions

- Obey the following safety instructions when servicing or repairing this machine.

- Wear proper Personal Protective Equipment (PPE) while working on this machine, which may include safety glasses, hard hats, steel toe boots, gloves, etc.

- Wear a welding helmet when welding to protect your eyes, face and neck from flash burn, ultra-violet radiation and heat.

- Ensure all jack stands, lifts and hoists are in good working condition and have the rated load capacity to support the load.

- If servicing is performed while the Vibratory Roller Attachment is attached to the skid steer, turn engine off, set parking brake and chock wheels to prevent skid steer from moving.

- Only perform service work in a well-lit area.

- Allow the machine to cool down before servicing this machine. Hot oils can burn your skin.

- **NEVER** work under a mechanical device without support.

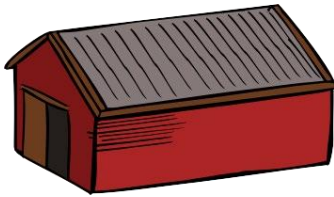
Handling safety

Storage Tips

To get years of quality use out of your Skid Steer Vibratory Roller Attachment, follow these storage tips:



Ensure Vibratory Roller Attachment is free of debris, dirt, grime and grease.



Store your Vibratory Roller Attachment in a dry shed or garage.



When storing your Vibratory Roller Attachment for the season, cover with a weather proof tarp to protect it from the elements.

Blade Holder Removal

WARNING

To avoid an accident that could result in death or serious injury, NEVER place your body under an unsupported cutter deck when servicing this Vibratory Roller Attachment. ONLY service the brush cutter on stable, even terrain. NEVER park on sloped terrain to avoid being struck and killed or seriously injured by the unexpected rolling or movement of the skid steer.

NOTICE

ALWAYS release the hydraulic system pressure from the auxiliary hydraulic circuit prior to removing the blade holder.



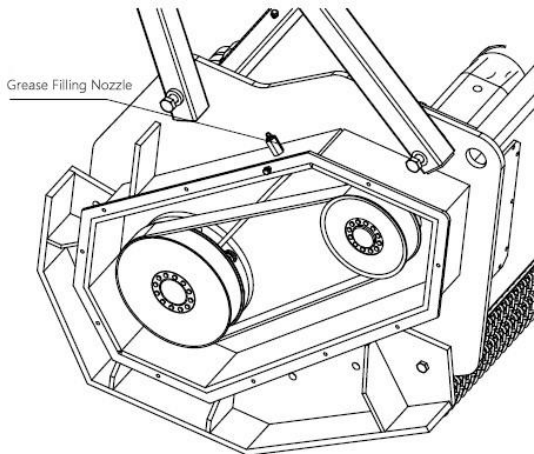
Handling safety

Maintenance Instructions

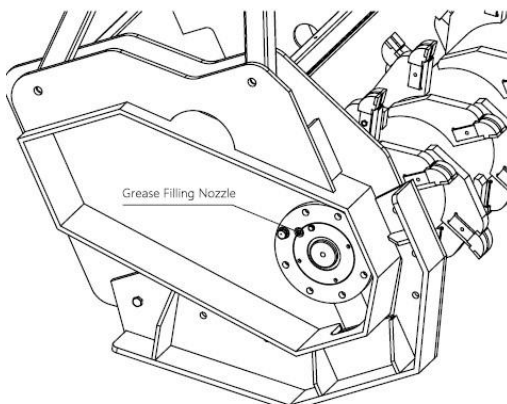
Regular maintenance on attachment is the key to remain its long working life and safety work. The maintenance items described below are more important.

- (1) Check all fasteners for looseness and fasten them.
- (2) Check mulcher hydraulic system, to see whether there is leakage or not, if there is leakage, replace leaked tube joints or tubes timely.
- (3) Check for components damage on mulcher, and cracks on solder joints, repair if necessary.
- (4) To refill oil bearing regularly, generally not more than 40 hours for one time refill. The positions of refill lubricating oil are at both ends of the cutting drum and motor mount. See following pictures:
- (5) Regularly check belt tension, general inspection once every 100 hours.
- (6) After one time working, clean up debris and dirt on cutting drum and other parts.
- (7) In the maintenance work, be sure to turn off host machine engine, and hang up the "maintenance" warning sign on host machine obvious place to prevent others close to.
- (8) When replacing parts, replace only with the parts approved by the manufacturer.

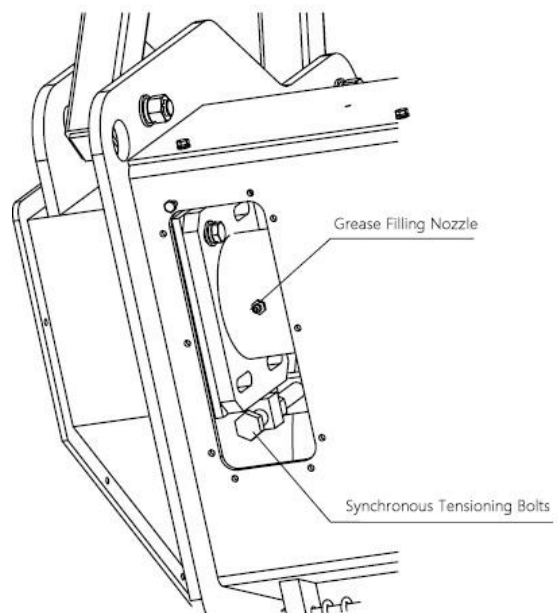
A. Transmission end:



B. The other side of Transmission end:



C. Motor installation



Handling safety

OSHA 1910.266 Appendix A - First-aid Kits

Source:

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9863.

Accessed: 16 Dec 09

The first-aid kit information below was directly obtained from OSHA regulations. Having a kit available at the job site is required by OSHA for logging operations and is highly recommended by AGT Manufacturing.

The following list sets out the minimum acceptable quantity and type of first aid supplies for the first aid kit required under paragraph (d)(2) of the Standard of Practice. The contents of the first-aid kit listed should be adequate for small work sites, consisting of approximately two to three employees. When larger operations or multiple operations are being conducted at the same location, additional first-aid kits should be provided at the work site or additional quantities of supplies should be included in the first-aid kits:

1. Gauze pads (at least 4 x 4 inches).
2. Two large gauze pads (at least 8 x 10 inches).
3. Box adhesive bandages (band-aids).
4. One package gauze roller bandage at least 2 inches wide.
5. Two triangular bandages.
6. Wound cleaning agent such as sealed moistened towelettes.
7. Scissors.
8. At least one blanket.
9. Tweezers.
10. Adhesive tape.
11. Latex gloves.
12. Equipment such as resuscitation bag, airway, or pocket mask.
13. Two elastic wraps.
14. Splint.
15. Directions for requesting emergency assistance.

Handling safety

Inspection Checklist

This checklist is to be completed prior to every use of the Skid Steer Vibratory Roller Attachment.

DO NOT use a Skid Steer Vibratory Roller Attachment that fails inspection until it has been repaired.

Check for damaged hoses or hydraulic leaks. See hydraulic safety precautions in this manual.

Grease all Imbrication points. See lubrication point diagram in this manual.

Dress with a grinder periodically.

Check for cracked welds.

Check for bent or damaged components.

Check for damaged cylinder pins.

Check for missing or loose fasteners (bolts, nuts, snap rings, etc.)

Inspector Name

Date

* * * IMPORTANT * * *

If you are using your Skid Steer Vibratory Roller Attachment as part of a commercial operation it is HIGHLY recommended that you keep a copy of all inspections performed on the machine and the Skid Steer Vibratory Roller Attachment. Also maintain records of repairs that are performed as a result of failed inspections. OSHA inspectors will likely ask for proof that you are taking steps to mitigate risks and to comply with OSHA regulations. Refer to www.osha.gov on the Internet and search for "1910.266" to display regulations specific to logging operations.

Handling safety

Safely Checking for Hydraulic Leaks

WARNING:

There is significant risk of injection from the high pressure spray at hydraulic leaks

- The tremendous energy used to operate the machine and attachments can be stored in the hydraulic system even when the machine engine is off.
- Very serious injuries from hydraulic fluid injection can seem insignificant at first. Often it can seem

like a pin prick or tingling, but later it may require amputation. **HIGH PRESSURE LEAKS ARE**

OFTEN INVISIBLE.

Hydraulic system injuries can include:

- Burns from hot fluid
- Injection of hydraulic fluid
- Trauma from energized components or flailing lines

DO	DO NOT
<p>Always Lock Out Tag Out machine controls before working on the machine or attachment.</p> <p>Always use the methods recommended by the manufacturer to block loader arms and other moving components to prevent accidental movement.</p> <p>Always use appropriate PPE (Personal Protective Equipment) when working on/around machinery.</p> <p>Take an approved safety course related to hydraulic systems. Local university extension programs and equipment dealers will offer training on hydraulic safety.</p>	<p>DO NOT use your hands, or other body parts, to inspect for hydraulic leaks.</p> <p>DO NOT position yourself in pinch points when the machine has not been properly blocked, locked out and tagged out.</p> <p>DO NOT "crack" a hydraulic fitting to release hydraulic pressure. Severe risk of injection.</p> <p>DO NOT tighten or loosen hydraulic components when the system is pressurized.</p> <p>DO NOT assume that the system is depressurized.</p>

Limited Warranty

The goal of agrotkindustrial.(“AGT”) warranty policy is to assure confidence, reduce downtime and minimize cost of ownership. Should you want to verify warranty, or should potential issues arise, please contact your authorized dealer or AGT’ s Customer Service Team at service@agrotkindustrial.com, +1 913-244-6269 and we will strive to resolve any issues in a timely manner.

AGT Attachments (“AGT”) offers a Limited Warranty on Shear, Grapple, and Puller Attachments delivered hereunder against faulty workmanship and use of defective materials for a period of twenty four (24) months from the date of shipment to the original purchaser from USA and/or USA Authorized Dealers. AGT offers a Limited Warranty on Saw Attachments against faulty design, material, and workmanship for normal use when properly maintained for a period of twelve (12) months from date of shipment. The Warranty for all products listed above and delivered hereunder to Rental users is for a period of six (6) months from the date of shipment to the original purchaser. Seller offers a Limited Warranty for miscellaneous parts and accessories such as cylinders, hoses, switches, valves and wiring delivered hereunder against faulty workmanship and use of defective materials for a period of three (3) months from the date of shipment. This warranty does not include, and there in hereby excludes, maintenance parts and consumables including but not limited to hydraulic fluid, oil, belts, teeth, blades, filters and other similar items.

AGT offers a Limited Warranty on Auger Attachments against faulty design, material, and workmanship for normal use when properly maintained.

Auger Gearboxes are warranted for a period of sixty (60) months from date of shipment, Auger Motors are warranted for twenty four (24) months from date of shipment. Auger Bits, Frames and Cradles are warranted for a period of twelve (12) months from date of shipment. Refer to the Product Manual for proper maintenance procedures. Spare, Replacement and After Warranty Parts including hoses and components are warranted for three (3) months. AGT Auger Teeth, Pilots, Adaptors and Extensions are manufactured with a patented design to interface with AGT Auger attachments extensions and adaptors. The use of attachments other than AGT Auger Teeth, Pilots, attachments, extensions and/or adaptors, will void all warranty on Auger Drive and Bits. The use of AGT adaptors on unapproved attachments is not sanctioned. A “home-made” or non-standard attachment outside the specifications for the machine will void the warranty.



sales@agrotkindustrial.com

<https://www.agrotkindustrial.com/>