

Skid Steer Forestry Drum Mulcher Attachment

Model:TMG-SFM60





- 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 call: 1-877-761-2819 or email: cs@tmgindustrial.com
Do not return the product to dealer, they are not equipped to handle your requests

Toll Free:1-877-761-2819

TABLE OF CONTENTS

TO THE OWNER2/2	7
SAFETY PRECAUTIONS3/2	:7
SKID STEER FORESTRY DRUM MULCHER ATTACHMENT ASSEMBLY7/2	27
OPERATION INSTRUCTIONS21/	27
MAINTENANCE INSTRUCTIONS23/2	27
STORAGE INSTRUCTIONS26/2	27
SPECIFICATIONS27/2	27

TO THE OWNER

GENERAL COMMENTS

Congratulations for having this skid steer forestry drum mulcher attachment! Your skid steer forestry drum mulcher attachment was carefully designed and manufactured to give you years of dependable service. Your skid steer forestry drum mulcher attachment will require some minor maintenance(such as cleaning and lubricating) to keep it in top working condition.

Be sure to observe all safety precautions and maintenance procedures as described in this manual.

ABOUT THIS MANUAL

This manual has been designed to help you do a better and safer job. Read this manual carefully and become familiar with its contents. Remember, never let anyone operate this unit without reading the "Safety Precautions" and "Operation Instructions" sections of this manual. Unless noted otherwise, right and left sides are determined from the position of the skid steer operator sitting in the seat facing forward.

SERVICE

When service your skid steer forestry drum mulcher attachment,pls. remember to use only manufacturer replacement parts. Substitute parts may not meet the standards required for safe, dependable operation. To facilitate parts ordering, pls. record the model No. and serial No. of the metal plate on your unit.

The skid steer forestry drum mulcher attachments are designed to be easy to use and maintain. They are operated by the skid steer auxiliary hydraulics. The skid steer forestry drum mulcher attachments mount to the toolbar or quick attach mechanism for easy mounting.

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 skid steer forestry drum mulcher 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.

TO THE OPERATOR

WARNING! PROTECT AGAINST FLYING DEBRIS



- 1. Always wear proper safety glasses, goggles, or a face shield when driving pins in or out, or when any operation causes dust, flying debris, or any other hazardous material.
- 2. Don't modify the skid steer forestry drum mulcher attachment casually.
- 3. Should keep the machine on the flat ground when repair, far away from the transportation and other dangerous places.
- 4. Should use the right tools to repair.
- 5. Don't operate the machine, unless you are professional, have certificates, and familiar with its functions, specs and safe operation rules.
- 6. Must not leave the machine when the machine is running. Must stop the engine at first and then remove the key if want to leave.

These are common practices that may or may not be applicable to the products described in this manual.

Safety at All Times

Thoroughly read and understand the instructions given in this manual before operation. Refer to the "Safety Label" section, read all instructions noted on them.

Do not allow anyone to operate this equipment who has not fully read and comprehended this manual and who has not been properly trained in the safe operation of the equipment.

- ▲ The operator must not use drugs or alcohol as they can change the alertness or coordination of that person while operating equipment. The operator should, if taking over-the-counter drugs, seek medical advice on whether he/she can safely operate the equipment.
- ▲ Operator should be familiar with all functions of the unit.
- Make sure all guards and shields are in place and secured before operating implement.
- ▲ Keep all persons away from equipment and work area.
- ▲ Start skid steer with steering levers and hydraulic controls in neutral.
- ▲Operate implement and loader arms from the driver's seat only.
- ▲ Dismounting from a moving unit can cause serious injury or death.
- ▲ Do not allow anyone to stand between skid steer and implement while hooking-up to implement.
- ▲Keep hands, feet, and clothing away from power-driven parts.
- Watch out for objects overhead and along side such as fences, buildings, wires, trees, limbs, etc., while transporting and operating attached implement.
- ▲ Detach and store implement in an area where children normally do not play. Secure implement by using blocks and supports.

Look For The Safety Alert Symbol



The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control, and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.

Be Aware of Signal Words

A Signal word designates a degree or level of hazard seriousness. The signal words are:

A

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

A WARNING

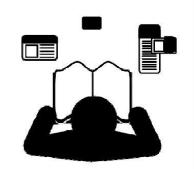
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

For Your Protection

▲Thoroughly read and understand the "Safety Label" section, read all instructions noted on them.



Avoid Underground Utilities

▲ Dig Safe

Always contact your local utility companies (electrical, telephone, gas, water, sewer, and others) before digging so that they may mark the location of any underground services in the area.

▲ Be sure to ask how close you can work to the marks they positioned.

Toll Free:1-877-761-2819

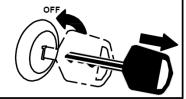


These are common practices that may or may not be applicable to the products described in this manual.

Shutdown and Storage

Before leaving operator's seat:

- ▲ Lower lift arms and put attachment flat on the ground.
- ▲ Turn off engine and engage parking brake.
- ▲ If included, raise seat bar and move controls until both lock.
- Remove key to prevent unauthorized starting.
- Use steps, grab-handles and anti-slip surfaces when getting on or off the loader.
- ▲ Detach and store implements in an area where children normally do not play. Secure implement by using blocks and supports.



Transport Safely

- ▲ Comply with state and local laws.
- ▲ Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrains require a slower speed.
- Avoid contact with any over head utility lines or electrically charged conductors.
- ▲ Always drive with load on end of loader arms low to the ground.
- ▲Always drive straight up and down ramps with load on "uphill" side of skid steer.
- ▲Engage parking brake when stopped on an incline.

- ▲IMPORTANT: Do not tow a load
 That is more than double the weight
 of the vehicle towing the load.
- ▲ Usetowingvehicleandtrailerofadequa tesizeandcapacity.Secureequipmen t towed on a trailer with tie downs and chains.
- ▲ Sudden braking can cause a towed trailer to swerve and upset. Reduce speed if towed trailer is note quipped with brakes.



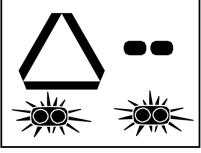






Use Safety Lights and Devices

- ▲ Slow moving self-propelled equipment, and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at night.
- ▲ Flashing warning lights and turn signals are recommended whenever driving on public roads.



Practice Safe Maintenance

- ▲ Understand procedure before doing work. Use proper tools and equipment, refer to Operator's Manual for additional information.
- ▲ Work in a clean dry area.
- ▲ Lower attached implement to the ground and follow all shutdown procedures before leaving the operator's seat to perform maintenance.
- Allow implement to cool completely before working on it.
- ▲ Disconnect battery ground cable (-) before servicing or adjusting electrical systems or before welding on implement.
- ▲ Do not grease or oil implement while it is in operation.
- Inspect all parts. Make sure parts are in good condition & installed properly.
- Remove buildup of grease, oil, or debris.
- ▲ Remove all tools and unused parts from implement before operation.









These are common practices that may or may not be applicable to the products described in this manual.

Prepare for Emergencies

- ▲Be prepared if a fire starts.
- ▲ Keep a first aid kit and fire extinguisher handy.
- ▲Keep emergency numbers for doctor, ambulance, hospital, and fire department near phone.



Wear Protective Equipment

- ▲Wear protective clothing and equipment appropriate for the job. Clothing should be snug fitting without fringes and pull strings to avoid entanglement with moving parts.
- ▲ Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- ▲ Operating equipment safely requires the operator's full attention. Avoid wearing radio headphones while operating



Avoid High Pressure Fluids Hazard

- ▲ Escaping fluid under pressure can penetrate the skin causing serious injury.
- Avoid the hazard by relieving pressure before disconnecting hydraulic lines or performing work on the system.
- ▲ Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- ▲ Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- ▲Wear protective gloves and safety glasses or goggles when working with hydraulic systems
- with hydraulic systems.

 DO NOT DELAY. If an accident occurs, see a doctor familiar with this type of injury immediately. Any fluid injected into the skin or eyes must be treated within a few hours or gangrene may result.

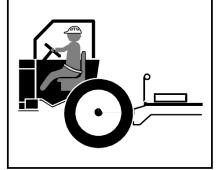
Tire Safety

- ▲ Tire changing can be dangerous and should be preformed by trained personnel using the correct tools and equipment.
- ▲When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.
- ▲When removing and installing wheels, use wheel handling equipment adequate for the weight involved.



Use Seat Belt and ROPS

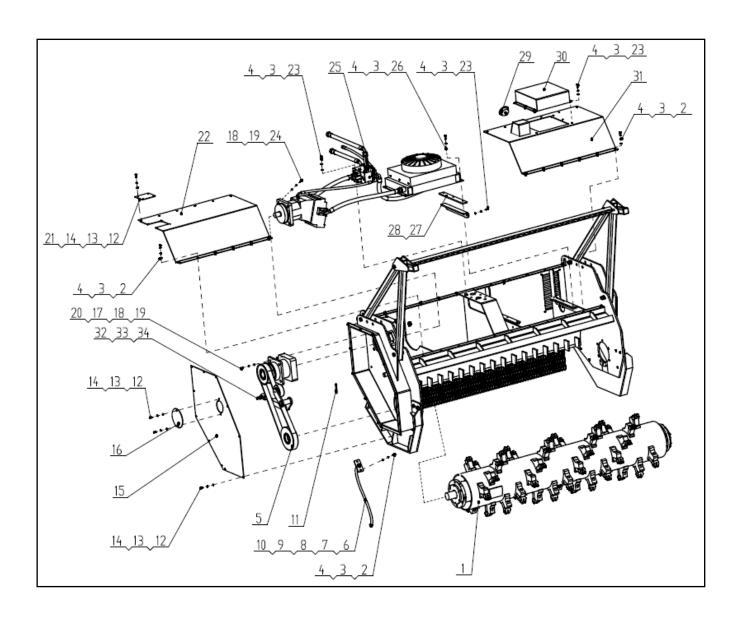
- ▲ Operate only skid steers equipped with a Roll-Over Protective Structure (ROPS) and seat belt.
- ▲ Fasten seat belt snugly and securely to help protect against serious injury or death from falling and skid steer overturn.
- ▲ Wearing protective equipment such as safety shoes, safety glasses, hard hat, and ear plugs is highly recommended.

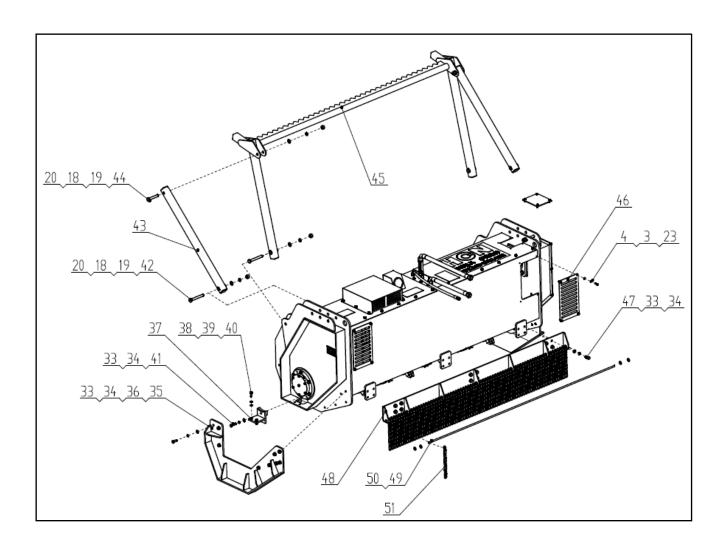


Keep Riders Off Machinery

- ▲ Never carry riders or use Machinery as a person lift.
- ▲ Riders obstruct operator's view.
- ▲ Riders could be struck by foreign objects or thrown from the machine.
- ▲ Never allow children to operate equipment.



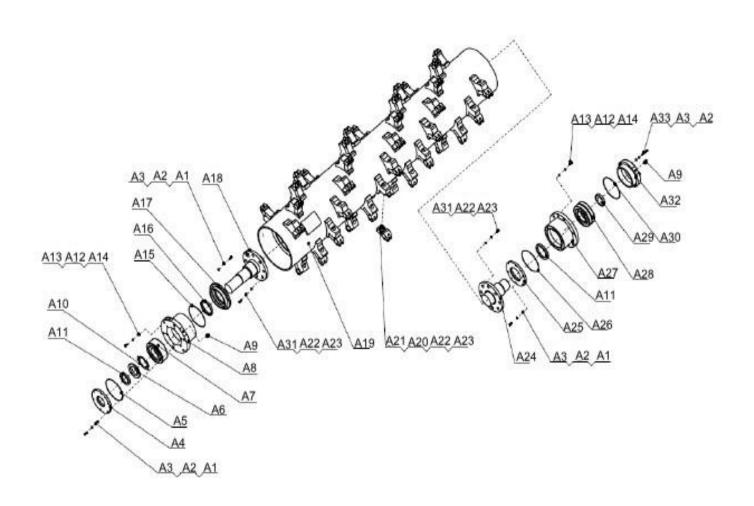




PART NO.	S/N NUMBER	PART DESCRIPTION	QTYS	NOTE
1	051360-01	Cutting Drum Assembly	1	
2	051360-02	Bolt M8X16	34	
3	051360-03	Spring Washer D8	46	
4	051360-04	Flat Washer D8	46	
5	051360-05	Mechanical Transmission Assembly	1	
6	051360-06	Transparent Air tubeφ 12-600	1	
7	051360-07	Pagoda-Shape Connector G3/8	2	
8	051360-08	Hose Clampφ 16	2	
9	051360-09	Vent Plug G1/4	4	
10	051360-10	Oil Filling Port	1	
11	051360-11	Split Pin D8x60	1	
12	051360-12	Hexagon Bolt M6x16	17	
13	051360-13	Spring Washer D6	17	
14	051360-14	Flat Washer D6	17	
15	051360-15	Side Seal Plate	1	
16	051360-16	Cover Plate For Tighten or Loosen	1	
17	051360-17	Hexagon Bolt M16x60	4	
18	051360-18	Spring Washer D16	8	

PART NO.	S/N NUMBER	PART DESCRIPTION	QTYS	NOTE
19	051360-19	Flat Washer D16	8	
20	051360-20	Nut M16	4	
21	051360-21	Upper Refueling Board	1	
22	051360-22	Upper Cover Plate 1	1	
23	051360-23	Hexagon Bolt M8x20	18	
24	051360-24	Hexagon Bolt M16x50	4	
25	051360-25	Hydraulic System	1	
26	051360-26	Hexagon Bolt M8x25	6	
27	051360-27	Radiator Support Plate	2	
28	051360-28	Rubber Plate	2	
29	051360-29	Pressure Gauge	1	
30	051360-30	Dust Cover	1	
31	051360-31	Upper Cover Plate 2	1	
32	051360-32	Hexagon Bolt M12x80	1	
33	051360-33	Spring Washer D12	19	
34	051360-34	Flat Washer D12	19	
35	051360-35	Backing Plate	2	
36	051360-36	Hexagon Bolt M12x30	18	
37	051360-37	Reinforcing Plate	1	

PART NO.	S/N NUMBER	PART DESCRIPTION	QTYS	NOTE
38	051360-38	Hexagon Bolt M10x30	2	
39	051360-39	Spring Washer D10	2	
40	051360-40	Flat Washer D10	2	
41	051360-41	Hexagon Bolt M12x40	1	
42	051360-42	Hexagon Bolt M16x120	4	
43	051360-43	Pull Rod	2	
44	051360-44	Hexagon Bolt M16x90	2	
45	051360-45	Front Push Bar	1	
46	051360-46	Rear Cover Plate	2	
47	051360-47	Hexagon Bolt M12x25	12	
48	051360-48	Skid Chain Mounting Base	1	
49	051360-49	Hanger Rod	1	
50	051360-50	Hexagon Bolt M10	4	
51	051360-51	Chain	73	

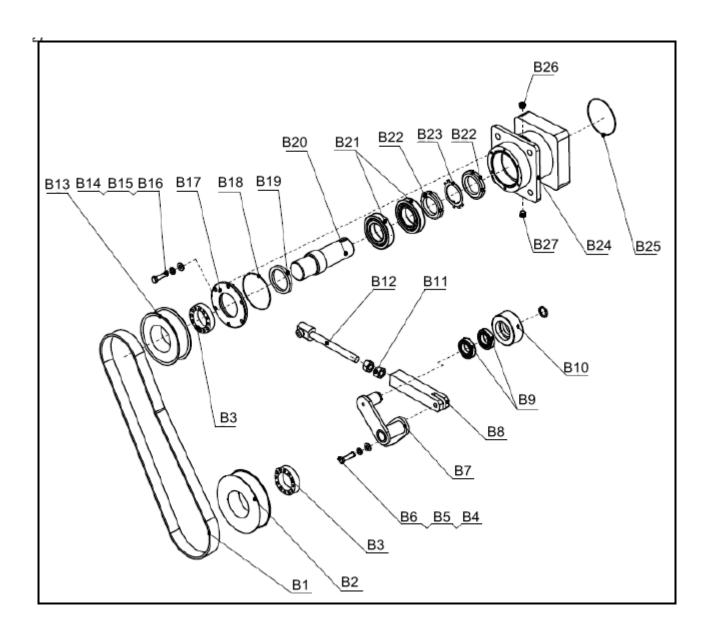


Cutting Drum Assembly Figure A

Toll Free:1-877-761-2819

PART NO.	S/N NUMBER	PART DESCRIPTION	QTYS	NOTE
A 1	051360-01-01	Hexagon Bolt M6x25	6	
A2	051360-01-02	Spring Washer D6	6	
А3	051360-01-03	Flat Washer D6	6	
A4	051360-01-04	Seal End Cap A	1	
A5	051360-01-05	O-ring 147x1.8	1	
A 6	051360-01-06	Round Nut M65x2	1	
A7	051360-01-07	Cylindrical Roller Bearing	1	
A8	051360-01-08	Left Bearing Seat	1	
A9	051360-01-09	Purge Plug M12x1	1	
A10	051360-01-10	Tab Washers for Round Nut D65	1	
A11	051360-01-11	Skeleton Seal 80x100-10	2	
A12	051360-01-12	Hexagon Bolt M12x60	6	
A13	051360-01-13	Spring Washer D12	6	
A14	051360-01-14	Flat Washer D12	6	
A15	051360-01-15	O-ring133x1.8	1	
A16	051360-01-16	Skeleton Seal 60x80-10	1	
A17	051360-01-17	Right Cover Plate	1	

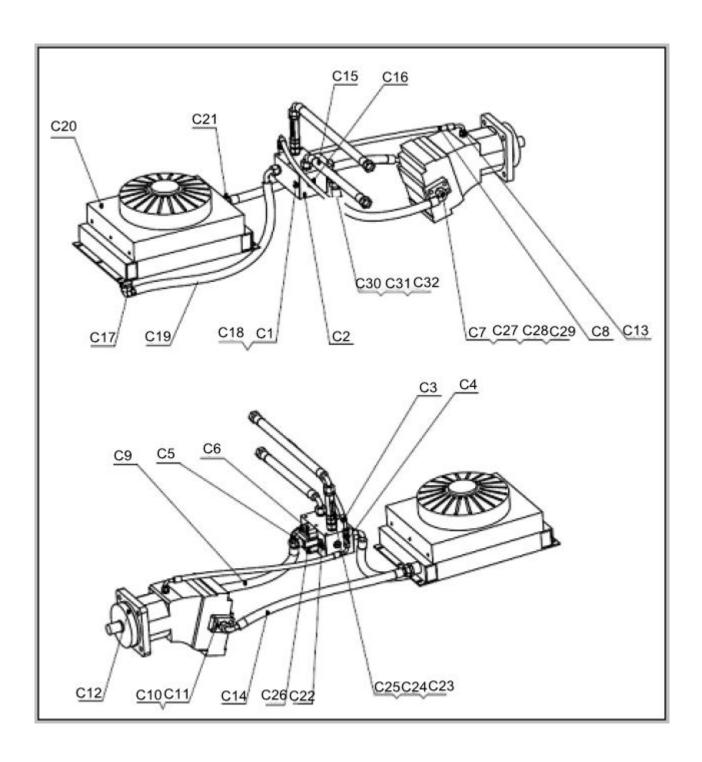
PART NO.	S/N NUMBER	PART DESCRIPTION	QTYS	NOTE
A18	051360-01-18	Left Drive Shaft	1	
A19	051360-01-19	Cutting Drum	1	
A20	051360-01-20	Cutting Tooth	49	
A21	051360-01-21	Outer Hexagon Bolt M16x60	49	
A22	051360-01-22	Flat Washer D16	61	
A23	051360-01-23	Spring Washer D16	61	
A24	051360-01-24	Right Connecting Shaft	1	
A25	051360-01-25	Sealing Cover	1	
A26	051360-01-26	O-ring C132X1.8	1	
A27	051360-01-27	Bearing Seat	1	
A28	051360-01-28	Bearing	1	
A29	051360-01-29	End Cap	1	
A30	051360-01-30	O-ring	1	
A31	051360-01-31	Bolt M16x50	12	
A32	051360-01-32	Bearing End Cover	1	
A33	051360-01-33	Bolt M6x40	6	



Mechanical Transmission Assembly Figure B

PART NO.	S/N NUMBER	PART DESCRIPTION	QTYS	NOTE
B1	0513-05-01	Synchronous Belt	1	
B2	0513-05-02	Driven Wheel	1	
В3	0513-05-03	Expansion Sleeve Z2-60X90	2	
B4	0513-05-04	Hexagon Bolt M12x45	1	
B5	0513-05-05	Spring Washer D12	1	
В6	0513-05-06	Flat Washer D12	1	
В7	0513-05-07	Rotation Shaft	1	
B8	0513-05-08	Square Steel	1	
В9	0513-05-09	Deep Groove Ball Bearing	2	
B10	0513-05-10	Tension Wheel	1	
B11	0513-05-11	Nut M20	2	
B12	0513-05-12	Screw Stem	1	
B13	0513-05-13	Driving Wheel	1	
B14	0513-05-14	Bolt M6x25	6	
B15	0513-05-15	Spring Washer D6	6	

PART NO.	S/N NUMBER	PART DESCRIPTION	QTYS	NOTE
B16	0513-05-16	Flat Washer D20	6	
B17	0513-05-17	Bearing End Cover	1	
B18	0513-05-18	O-ring	1	
B19	0513-05-19	Skeleton Seal	1	
B20	0513-05-20	Output Shaft	1	
B21	0513-05-21	Cylindrical Roller Bearing	2	
B22	0513-05-22	Lock Nut	2	
B23	0513-05-23	Stop Gasket	1	
B24	0513-05-24	Bearing Seat	1	
B25	0513-05-25	O-ring	1	
B26	0513-05-26	Ventilating Screen	2	
B27	0513-05-27	Plug	1	



Hydraulic System Figure C

PART NO.	S/N NUMBER	PART DESCRIPTION	QTYS	NOTE
C1	051360-25-01	Pressure Tap	1	
C2	051360-25-02	Manifold Block	1	
C3	051360-25-03	Drain Hose A	1	
C4	051360-25-04	Bulkhead Connector	1	
C 5	051360-25-05	End Straight Joint	4	
C6	051360-25-06	Angle one-way valve	1	
C 7	051360-25-07	End Straight Joint	2	
C8	051360-25-08	Drain Hose B	1	
C 9	051360-25-09	Motor Hose A	1	
C10	051360-25-10	Flange Joint	2	
C11	051360-25-11	O-ring 30X3.55-G-N	2	
C12	051360-25-12	Inclined Shaft Axial Piston Motor	1	
C13	051360-25-13	End Straight Joint	1	
C14	051360-25-14	Motor Hose B	1	
C15	051360-25-15	Motor Hose C	2	
C16	051360-25-16	Plug M18*1.5	2	

PART NO.	S/N NUMBER	PART DESCRIPTION	QTYS	NOTE
C17	051360-25-17	Right Angle Combination Joint	2	
C18	051360-25-18	Pressure Gauge(40MPa)	1	
C19	051360-25-19	Radiator Hose	1	
C20	051360-25-20	Oil Cooled Radiator	1	
C21	051360-25-21	End Straight Joint	2	
C22	051360-25-22	Plug	1	
C23	051360-25-23	Tubular Check Valve	1	
C24	051360-25-24	Straight Combined Connection Joint	1	
C25	051360-25-25	End Straight Joint	2	
C26	051360-25-26	Bolt M10*50	4	
C27	051360-25-27	Bolt M12x40	4	
C28	051360-25-28	Flat Washer D12	8	
C29	051360-25-29	Spring Washer D12	8	
C30	0513-25-30	Inlet Hose	1	
C31	0513-25-31	Outlet Hose	1	
C32	0513-25-32	Drain Hose	1	

OPERATION INSTRUCTIONS

The skid steer forestry drum mulcher attachment has the reasonable structure, small volume, flexible use, high efficiency, reliable quality and superior performance.

Attach the skid steer forestry drum mulcher attachment to the toolbar or quick attach mechanism of your skid steer loader.

START OPERATION

A. Description of Capability:

This mulcher is used to tear through hardwood, stumps and branches with the diameter no more than 200mm. The pressure of its matched skid steer loader is not more than 35MPa.

B. If mulcher uses on the skid steer loader, please use high-flow hose joints.

Notes:

Rotation of its cutting drum is unidirectional. When hoses of mulcher are connected correctly, but its cutting drum does not work, let the engine of the skid steer loader idle, until the cutting drum is operated; Otherwise, you need replace the hose joints, meanwhile, close the engine of the skid steer loader.

- C. When open the hydraulic motor of the mulcher, need increase flow gradually to improve required rotation speed, and ensure its cutting drum speed is moderate during flow adjustment process.
- D. Operate the skid steer loader to control wearing plates of the mulcher on the both sides to touch the ground, then the operator controls the mulcher to start the job, by this way, it can achieve the best working results.

OPERATION INSTRUCTIONS

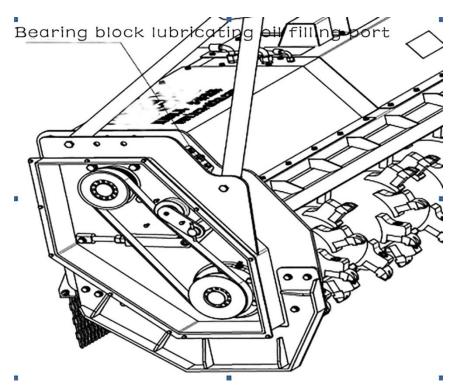
- E. During operation, do not lift the mulcher too high, in case the protection chains lose the protective effect on the operator, as the cutting pieces are easy to hurt the operator.
- F. Do not forward the skid steer loader too fast, as the fast speed not only causes the hydraulic system pressure of the skid steer loader too high, but also casues the high heat.
- G. If the mulcher meets obstacles with greater cutting force, its cutting drum does not rotate, the operator should remove it from cutting obstacles. Then restore the rotation speed of its cutting drum, and adopt the small cutting dimension to cut the obstacles, and slow down the speed of skid steer loader.
- H. To cut thicker trunks, when its cutting drum cuts off 3/4 of trunks, need use front push bar of the mulcher to touch trunks, and then forward skid steer loader to control front push bar to force the trunks to break, by this way, it can protect the operator won't be hit by the broken trunks.

MAINTENANCE INSTRUCTIONS

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

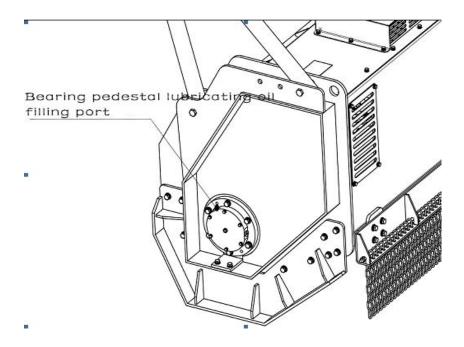
- a. Check all the bolts and nuts whether loosen, and tighten them.
- b. Check hydraulic system of the mulcher whether leak, replace leaked hose joints or oil hoses timely.
- c. Check whether any damages on the worn parts of mulcher, and cracked welds, repair them if necessary.
- d. Refill lubricant oil into the bearing seats regularly(model:GL-5 85W/90), generally not more than 500 hours to refill at a time. The positions of refilling lubricant oil refers to the following pictures:

(d1).Transmission And:



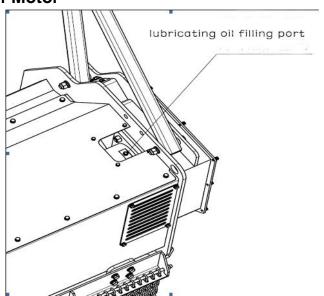
Drain the old oil before refill, about 0.2 L at a time

(d2). The Other Side of Transmission End:



Drain the old oil before refill, about 0.15 L at a time

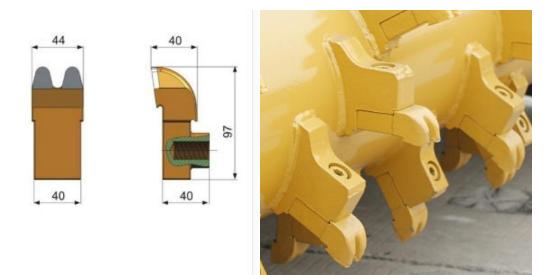
(d3).Installation Position of Motor



Drain the old oil before refill, about 0.2 L at a time

MAINTENANCE INSTRUCTIONS

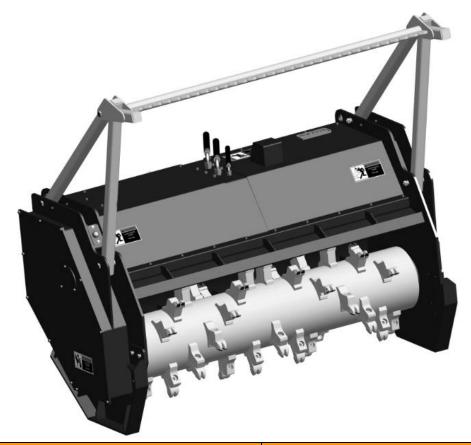
- e. Regularly check belt tension, general inspection once every 100 hours.
- f. Clean up debris and dirt on its cutting drum and other parts after mulcher.
- g. Be sure to turn off the engine of your skid steer loader when maintain the mulcher, and hang up the "maintenance" warning sign on the obvious place of your skid steer loader to keep persons away.
- h. Replace only with the parts approved by the manufacturer.



STORAGE INSTRUCTIONS

- 1. Clean all the debris, all mud, dirt and grease.
- 2. Inspect the unit for bent, loose, cracked, damaged or missing parts, Order any parts required, and make the necessary repairs to avoid delays when starting next season.
- 3. Tighten all loose nuts, bolts, screws and hydraulic connections.
- 4. Touch up all the unpainted and exposed areas with paint to prevent rust.
- 5. Replace security labels and tags if damaged, or in unreadable condition.
- 6. Connect the hydraulic couplers together or use the oil nuts to block the hydraulic hoses.
- 7. Check the motor for proper lubricant level.
- 8. Should put the device in the dry non-corrosive place. If in nude outside, will shorten its life.

SPECIFICATIONS



MODEL	TMG-SFM60
TOTAL LENGTH (MM)	900
TOTAL WIDTH (MM)	1860
TOTAL HEIGHT (MM)	1680
TRANSPORT HEIGHT (MM)	1080
WORKING WIDTH (MM)	1550
FLOW RATING (GPM)	24-32
MAX. PRESSURE (PSI)	3045
MULCHING DEPTH (MM)	≤100
NUMBER OF CUTTING BLADES (PCS)	40
WEIGHT(KGS)	985
SUITABLE HOST MACHINE	75HP OR ABOVE SKID STEER LOADER WITH LIFTING CAPACITY >1TON