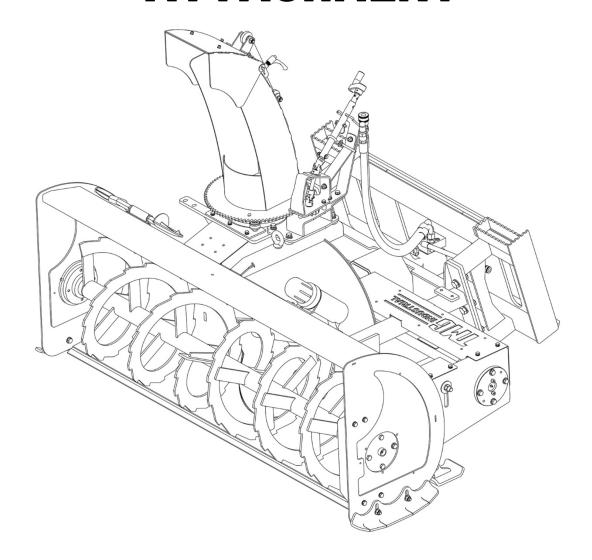


# TMG-SSB72 PRODUCT MANUAL v.2023.09.23

# 72"SKID STEER SNOW BLOWER ATTACHMENT



## **A WARNING**



- Please read and understand 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
- Do not return the product to dealer. They are not equipped to handle your requests.

**TOLL FREE: 1-877-761-2819** 

Missing parts or have questions on assembly?

Please call: 1-877-761-2819 or email: cs@tmgindustrial.com

# **TABLE OFCONTENTS**

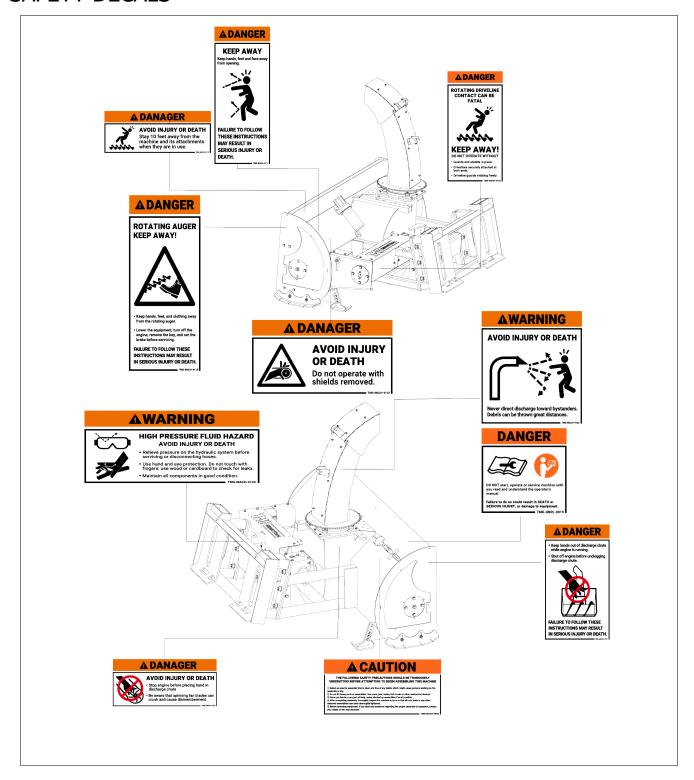
SAFETY INSTRUCTIONS	2
SAFETY RULE	3
PARTS DESCRIPTION AND FUCTION	8
PRODUCTS SPECIFICATIONS	9
UNPACKING & ASSEMBLY	. 11
CONNECTING SKID STEER LOADER	. 16
CHECK BEFORE OPERATING	. 17
LUBRICATION POINTS SUMMARY	.18
OPERATING ESSENTIAS	21
OPERATING FINISH	22
MAINTENANCE SCHEDULE	23
TROUBLE SHOOTING	. 24
FXPLODED VIEW & PARTS LIST	25

# **SAFETY INSTRUCTIONS**



Before operating the Snow Blower read the following safety instructions. Failure to comply with these warnings may result in serious injury or death.

#### SAFETY DECALS



#### **A DANGER**

#### **KEEP AWAY**

Keep hands, feet and face away



**FAILURE TO FOLLOW** THESE INSTRUCTIONS **MAY RESULT IN SERIOUS INJURY OR** DEATH.

#### **A** CAUTION

## **DANGER**





you read and understand the operator's

re to do so could result in DEATH or SERIOUS INJURY, or damage to equipment.

■ TMG-GNRL-0019

## **A DANAGER**



## **AVOID INJURY OR DEATH**

Do not operate with shields removed.

## **A DANAGER**



#### **AVOID INJURY OR DEATH**

- Stop engine before placing hand in discharge chute
- Be aware that spinning fan blades can crush and cause dismemberment

#### **ADANGER**

#### **ROTATING AUGER KEEP AWAY!**



- Keep hands, feet, and clothing away from the rotating auge
- Lower the equipment, turn off the engine, remove the key, and set the brake before servicing.

FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS INJURY OR DEATH.

#### **ADANGER**

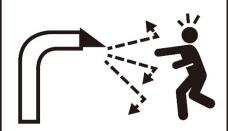
- Keep hands out of discharge chute while engine is running.
- Shut off engine before unclogging discharge chute.



**FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT** IN SERIOUS INJURY OR DEATH.

# **AWARNING**

#### **AVOID INJURY OR DEATH**



Never direct discharge toward bystanders. Debris can be thrown great distances.

#### **ADANGER**

#### **ROTATING DRIVELINE CONTACT CAN BE FATAL**



# DO NOT OPERATE WITHOUT

- · Guards and shields in place.
- · Drivelines securely attached at both ends.
- Driveline guards rotating freely.

# **A DANAGER**



#### **AVOID INJURY OR DEATH**

Stay 10 feet away from the machine and its attachments when they are in use.

#### **AWARNING**



#### HIGH PRESSURE FLUID HAZARD **AVOID INJURY OR DEATH**

- Relieve pressure on the hydraulic system before servicing or disconnecting hoses.
- Use hand and eye protection. Do not touch with fingers; use wood or cardboard to check for leaks
- Maintain all components in good condition.

## **SAFETY RULE**

#### $\diamond$ Warning

Careful operation is your best assurance against an accident. All operators, no matter how much experience they may have, Should carefully read this manual and other related manuals before operating the power machine and this implement.



- Thoroughly read and understand the "Safety Label" section. Read all instructions noted on them.
- Do not operate the equipment while under the influence of drugs or alcohol, as they impair your ability to safely and properly operate the equipment.
- The operator should be familiar with all functions of the skid steer loader and attached implement, and be able to handle emergencies quickly.
- Make sure all guards and shields appropriate for the operation are in place and secured before operating the implement.
- Keep all bystanders away from equipment and work area.
- Start skid steer loader from the driver's seat with hydraulic controls in neutral.
- Operate skid steer loader and controls from the driver's seat only.
- Never dismount from a moving skid steer loader or leave skid steer loader unattended with engine running.
- Do not allow anyone to stand between the implement and skid steer loader while backing up to the implement.
- Keep hands, feet, and clothing away from power-driven parts.
- While transporting and operating equipment, watch out for objects overhead and along the sides such as fences, trees, buildings, wires, etc.
- Do not turn skid steer loader so tight as to cause hitched implement to ride up on the skid steer loader's rear wheel.
- Store implement in a safe and secure area where children normally do not play. When needed, secure implement against falling with support blocks.

#### PREPARATION

- Keep a first aid kit and fire extinguisher handy.
- Keep the nozzle in contact with the rim of the fuel tank or container opening at all times, until refueling is complete. Do not use a nozzle lock open device.



- Wear protective clothing and equipment appropriate for the job such as safety shoes, safety, glasses, hard hat, dust mask, and ear plugs
- Clothing should fit snug 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 a machine safely requires the operator's full attention. Avoid wearing headphones while operating Equipment



#### ♦ SAFETY PRECAUTIONS FOR CHILDREN

Tragedy can occur if the operator is not alert to the presence of children, Children generally are attracted to implements and their work

- Never assume children will remain where you last saw them.
- Keep children out of the work area and under the watchful eye of a responsible adult.
- Be alert and shut the implement and skid steer loader down if children enter the work area.
- Never carry children on the skid steer loader or implement. There is not a safe place for them to ride. They may fall off and be run over or interfere with the control of the power machine.
- Never allow children to operate the power machine, even under adult supervision.
- Never allow children to play on the power machine or implement.
- Use extra caution when backing up. Before the skid steer loader starts to move, look down and behind to make sure the area is clear

## ♦ Wear Personal Protective Equipment (PPE)

- Wear protective clothing and equipment appropriate for the job such as safety shoes, safety, glasses, hard hat, dust mask, and ear plugs.
- Clothing should fit snug 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 a machine safely requires the operator's full attention. Avoid wearing headphones while operating equipment.

# Handle Chemicals Properly

- Protective clothing should be worn.
- Handle all chemicals with care.
- Follow instructions on container label.
- Agricultural chemicals can be dangerous. Improper use can seriously injure persons, animals, plants, soil, and property.
- Inhaling smoke from any type of chemical fire can be a serious health hazard.
- Store or dispose of unused chemicals as specified by the chemical manufacturer.

#### ♦ OPERATION

- Do not put hands or feet near, under or inside rotating parts.
- Exercise extreme caution when operating on or crossing gravel drives, walks or roads. Stay alert for hidden hazards or traffic.

  Do not carry passengers.
- Never tolerate bystanders in the working zone. Never use an accessory in the direction of by standers, it might throw gravel or debris that can hurt people or damage property.
- Never operate the accessory at high transport speeds on slippery surfaces. Use care when backing up.
- Do not carry passengers.
- Disengage power to the accessory when it is transported or not in use.
- Never operate the accessory without good visibility or light.
- Keep the accessory away from heat sources or flames.
- Never handle the winch cable or hook while in tension.
- Use only accessories approved by the manufacturer of the snow blower (such as wheel chains, and the like).
- Never operate the snow blower without good visibility or light
- Keep all safety guards in place and in proper working order at all times.
- NEVER place fingers, hands, or body near the snow blower when it is running. Do not lean or reach over the snow blower when the machine is running.
- Keep all people (except the operator) a minimum of 25 feet from the snow blower during operation.
- Always aim the discharge chute away from people and animals.
- Do not leave the snow blower unattended when it is running. Turn off the engine before leaving the area.
- Do not use this piece of equipment while tired or under the influence of drugs, alcohol or medication.
- Parts, especially exhaust system components, get very hot during use. Stay clear of hot parts.
- Use extra caution when operating on gravel or other loose material.
- -Exercise caution to avoid slipping or falling, especially when operating in reverse.
- -Thoroughly inspect the area where the equipment is to be used. Remove all foreign objects, which could be tripped over or thrown by the auger/impeller.
- -Always wear safety glasses or eye shields during operation and while performing an adjustment or repair to protect your eyes.

  Thrown objects which ricochet can cause serious injury to the eyes.
- -Operate the equipment with appropriate foot ware, gloves and clothing. Avoid loose fitting clothing that can get caught in moving parts.
- The auger and drive controls must be depressed to operate. Do not override this safety feature. Both control levers must operate easily and automatically return to the disengaged position when released.
- -Do not overload the snow blower by attempting to clear snow too quickly.
- -Do not operate at high speed on icy or slippery surfaces.
- -Always be sure of your footing especially when driving in reverse.

#### ♦ PRACTICE SAFE MAINTENANCE

- Understand procedure before doing work. Refer to the Operator's Manual for additional information
- Work on a level surface in a clean dry area that is well-lit.



- Lower implement to the ground and follow all shutdown procedures before leaving the operator's seat to

Perform maintenance.

- Do not work under any hydraulically supported equipment. It can settle, suddenly leak down, or be lowered accidentally. If it is necessary to work under the equipment, securely support it with stands or suitable blocking beforehand
- Use properly grounded electrical outlets and tools.
- Use correct tools and equipment for the job that are in good condition.
- Allow equipment to cool before working on it.
- Disconnect battery ground cable before servicing or adjusting electrical systems or before welding on implement.
- Inspect all parts. Make certain parts are in good condition & installed properly.
- Do not alter this implement in a way which will adversely affect its performance.
- Do not grease or oil implement while it is in operation.
- Remove buildup of grease, oil, or debris.
- Always make sure any material and waste products from the repair and maintenance of the implement are properly collected and disposed.
- Remove all tools and unused parts from equipment before operation.
- Do not weld or torch on galvanized metal as it will release toxic fumes.

#### ♦ MTRANSPORT SAFETY

- Read this owner's manual carefully. Be thoroughly familiar with the controls and proper use of the vehicle and snow blower. Know how to stop the unit and disengage the controls quickly..
- Never allow children to operate snow blower nor the vehicle. Never allow adults to operate snow blower nor the vehicle without proper instructions..
- No one should operate the vehicle nor the snow blower while intoxicated or while taking medication that impairs the senses or reactions
- Keep the area of operation clear of all persons, particularly small children and pets
- Comply with state and local laws governing safety and transporting of machinery on public roads.
- Check that all the lights, reflectors and other lighting requirements are installed and in good working condition.
- Do not exceed a safe travel speed. Slow down for rough terrain and cornering
- Do not drink and drive.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc. Watch for traffic when operating near or crossing road-ways.
- Never allow riders on the machine.



#### ♦ Use Seat Belt and ROPS

- Recommends the use of a CAB or roll-over-protective- structures (ROPS) and seat belt in almost all power machines.
- Combination of a CAB or ROPS and seat belt will reduce the risk of serious injury or death if the power machine should be upset.
- If ROPS is in the locked-up position, fasten seat belt snugly and securely to help protect against serious injury or death from falling and machine overturn

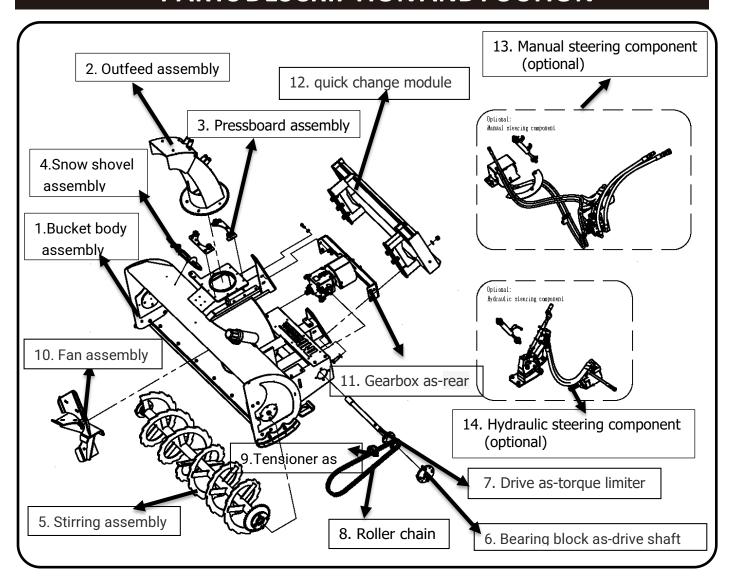
## Keep Riders Off Machinery

- Never carry riders on the skid steer loader or implement.
- Riders obstruct operator's view and interfere with the control of the power machine.
- Riders can be struck by objects or thrown from the equipment.
- Never use the skid steer loader or implement to lift or transport riders.

#### 

- Comply with federal, state, and local laws.
- Avoid contact with any overhead utility lines or electrically charged conductors.
- Engage park brake when stopped on an incline.
- Maximum transport speed for an implement is 20 mph (32 km/h). DO NOT EXCEED.
- Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrains
  require a slower speed.
- Sudden braking can cause a towed load to swerve and upset.
- Do not tow an implement that, when fully loaded, weights more than 1.5 times the weigh of towing vehicle.

# PARTS DESCRIPTION AND FUCTION



- Bucket body assembly
   Collect the snow raised by the augers
- 2. Outfeed assembly

Lift the snow out

- Pressboard assemblyIt is used to adjust and fix the snow outlet
- 4. Snow shovel assembly

Clean snow from snow chute or auger before and after use

- Stirring assemblySnow removal and ice breaking on roads
- 6. Bearing block as-drive shaft To power the auger
- 7. Drive as-torque limiter

To power the auger

8. Roller chain

To power the auger

9. Tensioner as

To power the auger

10. Fan assembly

Blow up the snow

11. Gearbox as-rear

It is used to connect the PTO to power the Skid Steer Loader

12. Quick change module

Quick Connect Skid Steer Loader

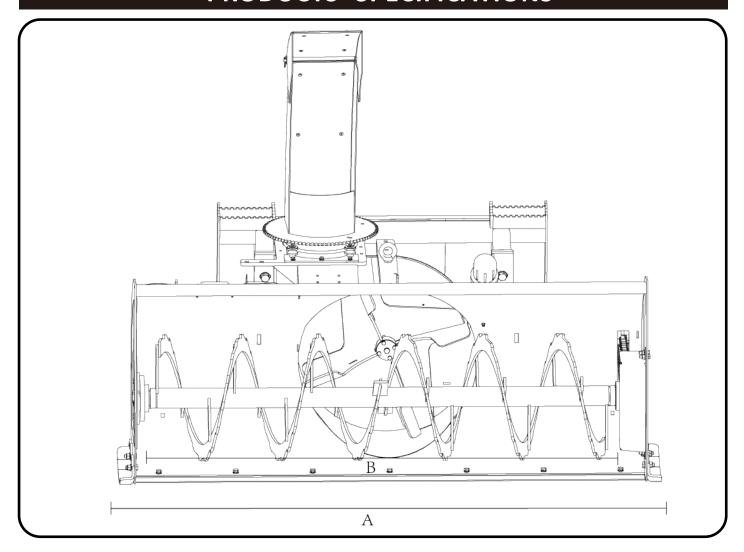
13. Manual steering component (optional)

Manual control of outfeed assembly steering

14. Hydraulic steering component (optional)

Hydraulically controlled steering of the outfeed assembly

# PRODUCTS SPECIFICATIONS

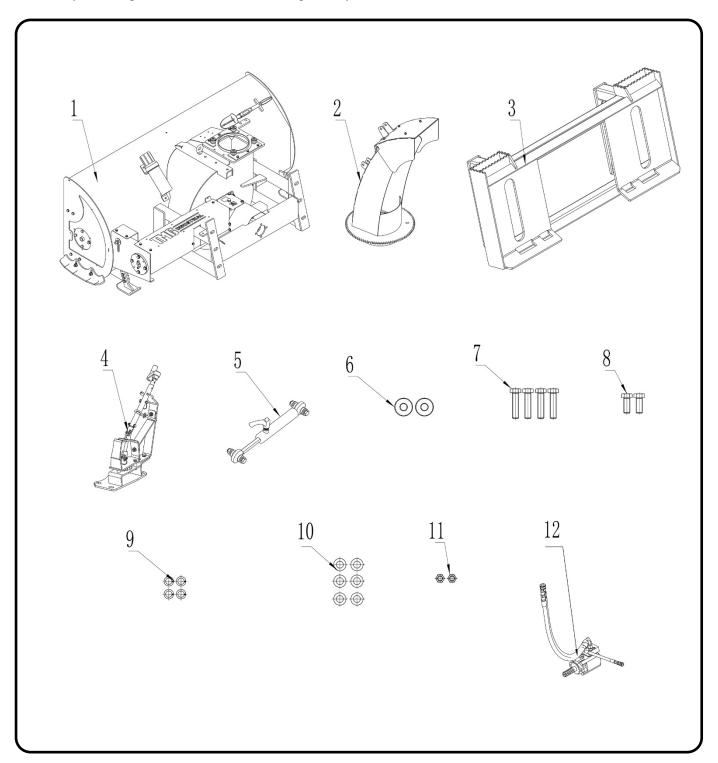


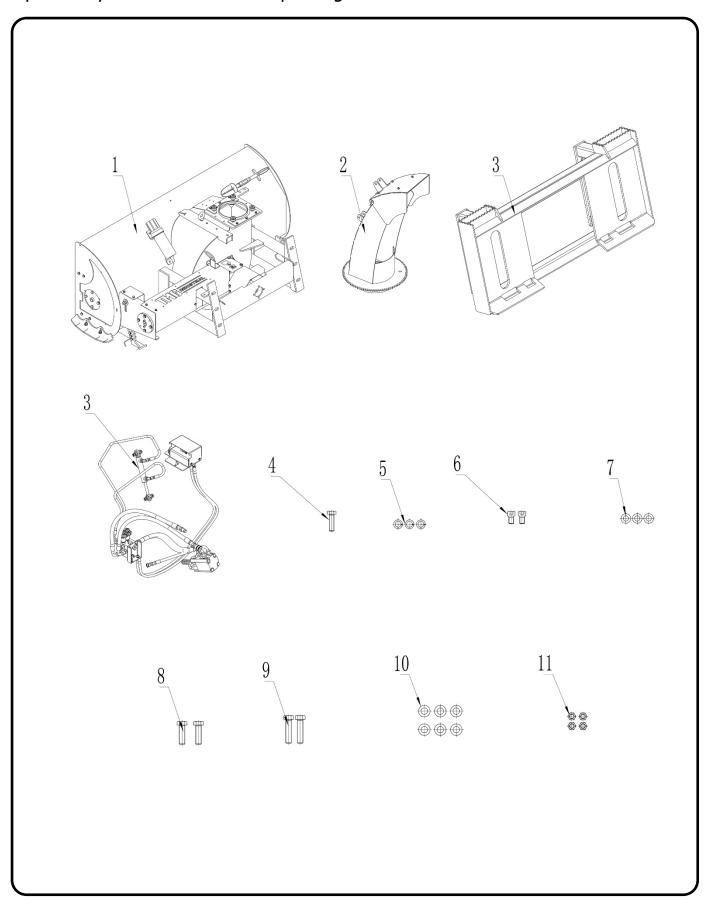
Skid Steer Snow Blowers						
Model No.	TMG-SSB72					
Working Width	70.87 in (1800 mm)					
Overall Width	74.8 in(1900mm)					
Weight with outside skid shoes, case drain line, couplings, & hydraulic motor	1.Full weight of hydraulic steering configuration1003lbs(454.6kg);					
	2.Full weight of manual steering configuration998lbs(452.51kg)					
Drive and Control System	Hydraulic motors					
Hydraulic Requirements:	1. Gearbox drive motor: 126.3cc/r;					
	Maximum flow rate (continuous): 75L/min;Pressure: 3000psi					
	2. Snow cone drive motor: 31.6cc/r;					
	Maximum flow rate (continuous): 18L/min;Pressure: 1450bar					
Rated hydraulic pressure of snow blower	2500 - 3000 psi					
Gearbox oil capacity	1 Qt SAE 90					
Hitch	Skid steer/loader mounting plate					
Chute opening at the base	8.66in (220mm)					
Impeller housing depth	7.87"in (200mm)					

Impeller diameter	24in (610mm)
Number of impeller blades	4
Auger diameter	17.5in (445mm)
Cutting edge	Bolt-on and replaceable full-length cutting edge
Skid shoes	Bolt-on, adjustable & replaceable
Chute rotation	Manual or Hydraulically driven sprocket (opention)
Chute rotation degrees	360 degrees(manual drive) / 220 degrees(Hydraulically driven)
Spout Deflector	Manual or Hydraulic operation(opention)
Horsepower requirement	45- 75 HP

# **UNPACKING & ASSEMBLY**

After unpacking, check the following components





\* All numbers are not part numbers in the drawings. For correct part numbers, see explosive diagram.

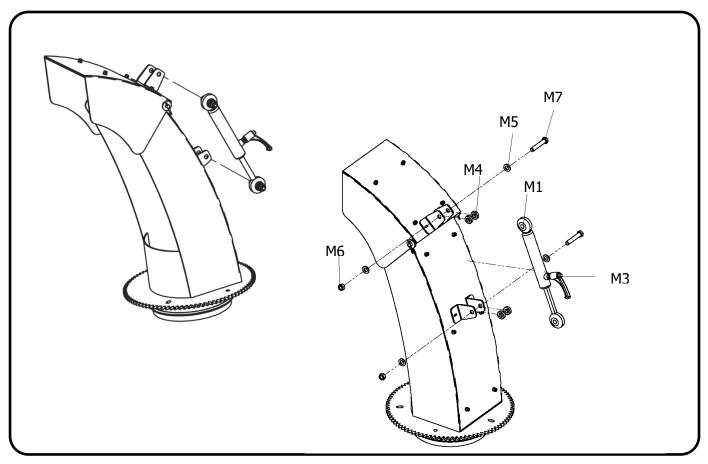
NO.	DESCRIPTION	QTY	NO.	DESCRIPTION	QTY
1	Bucket body assembly	1	7	Full thread hexagonal bolts M12 * 50	4
2	Outfeed assembly	1	8	Full thread hexagonal bolts M12 * 30	2
3	quick change module	1	9	Spring washers φ12	4
4	Handle as-hand assembly	1	10	Plain washers φ12	6
5	Push rod as-hand	1	11	Hexagon locknuts with non-metallic inserts type 1 M12	2
6	Spacer block (for installing Pressboard assembly)	2	12	Hydraulic motor assembly	1

NO.	DESCRIPTION	QTY	NO.	DESCRIPTION	QTY
1	Bucket body assembly	1	7	Plain washers φ10	3
2	Outfeed assembly	1	8	Full thread hexagonal bolts M12 * 40	2
3	Hydraulic steering component assembly (optional)	1	9	Full thread hexagonal bolts M12 *50	2
4	Full thread hexagonal bolts M10*35	1	10	Plain washers φ12	6
5	Spring washers φ10	3	11	Hexagon locknuts with non-metallic inserts type 1 M12	4
6	Hexagon socket cheese head screws M10*16	2			

	Tools used for installation						
No	Description	Specification	Conditions of Use	QTY			
1	open end wrench	13/19/37	M8, M12, M18 bolt fastening	2			
2	wind gun	1280t	Match the corresponding sleeve instead of the wrench to tighten the bolt	1			
3	hammer			1			
4	torque wrench	10-220N·m	Measuring torque	1			

## 1. Turning at the snow exit

#### 1.1 Handle as-hand

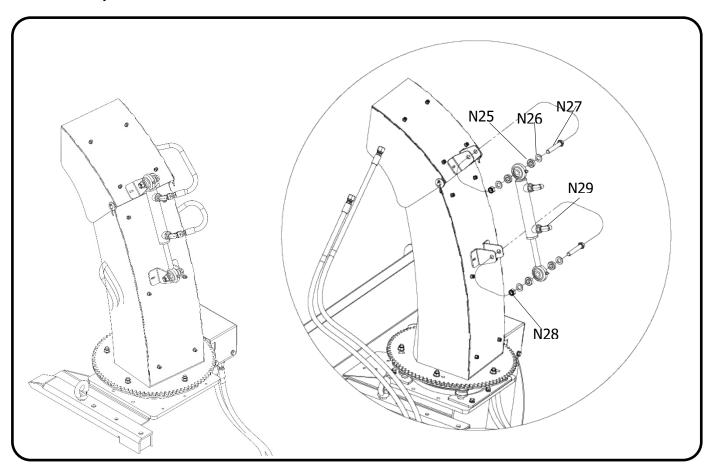


#### Installation steps:

- 1. M1 (Cylinder body welding parts) and M2 (Push rod welding parts) has been assembled, So, The step1 Install the hand push rod on the snow outlet, and then install the handle (M3) on the manual cylinder welding, and then secure the Spacer sleeves (M4), Plain washers (M5), Full-thread hexagon bolts M12\*70 (M7) and Locknuts M12(M6) on push rod welding parts (M1).
- 2. Importance: All bolts are locked in place without shaking.
- WARNING:Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working.

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
M1	Cylinder body welding parts	1	M5	Plain washers φ12	4
M2	Push rod welding parts	1	M6	Locknuts M12	2
M3	Handle M10*1.25*25	1	M7	Full-thread hexagon bolts M12*70	2
M4	Spacer sleeves	4			

#### 1.2 Push rod as-hydraulic



## Installation steps:

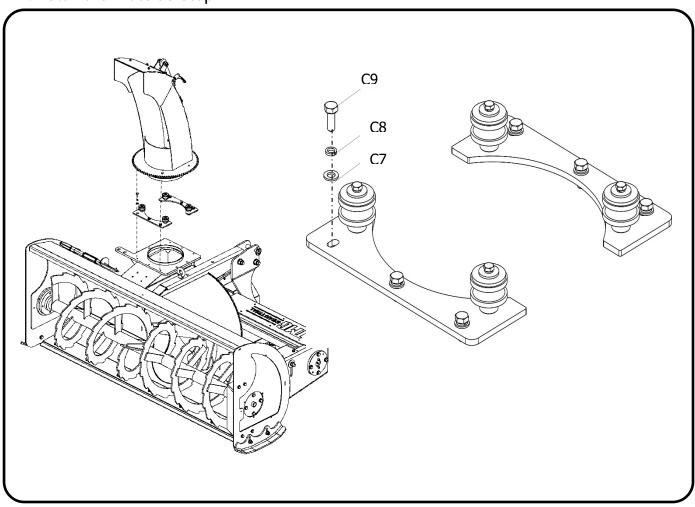
- 1. Install the Push rod as-hydraulic on the Bucket body assembly, For controlling the opening and closing angle of the Bucket body assembly .install the handle (N29) on the manual cylinder weld, and then secure the Manual push rod welding with the Hydraulic assembly spacer (25), Plain washers  $\varphi$ 12 (N26), Locknuts M12(N28) and Full-thread hexagon bolts M12\*70 (N27).
- 2. Importance: All bolts are locked in place without shaking.



WARNING:Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working.

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
N25	Hydraulic assembly spacer	4	N28	Locknuts M12	4
N26	Plain washers φ12	4	N29	Rotatable right angle fitting	2
N27	Full-thread hexagon bolts M12*70	2			

## 2.Install the Plate as-stop



## Installation steps:

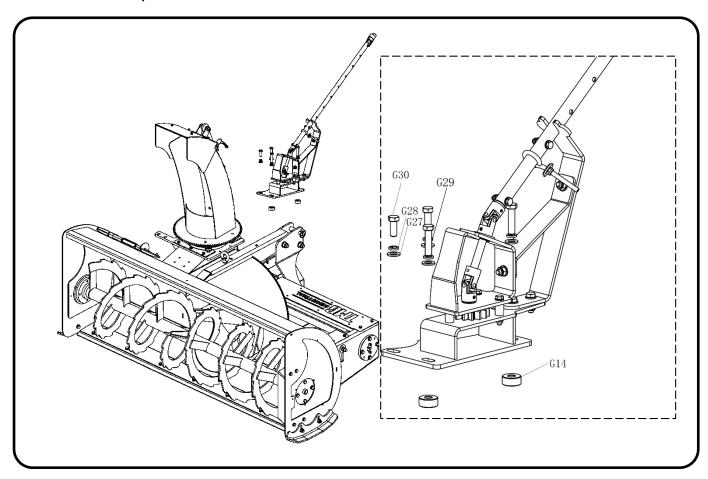
- 1. Install the discharge port on the snow blower, unscrew the bolt on the machine first, remove one of the Limit plate of snow funnel, align the discharge port with the bayonet of the snow blower, and fix the limit plate with Plain washer (C7), Full-thread hexagon bolts (C9) and Locknuts (C8)
- 2. portance: All bolts are locked in place without shaking.



WARNING: Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
C7	Plain washers φ8	6	C9	Full-thread hexagon bolts M8*20	6
C8	Spring washers φ8	6			

## 3.Install the hand push rod



## Installation steps:

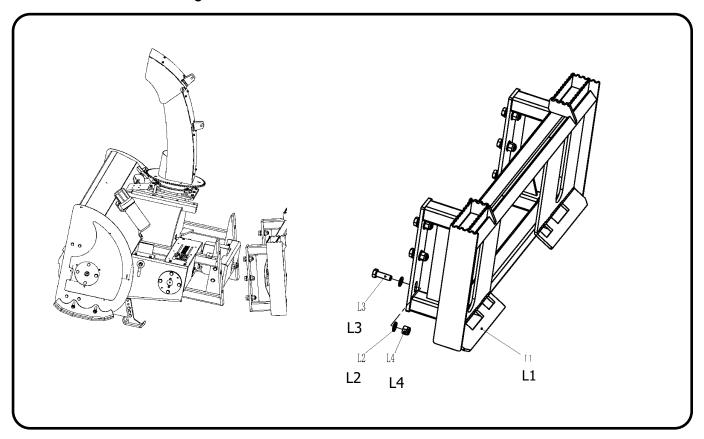
- 1. Attach the hand push rod, first install fix the base plate of the hand push rod respectively with Full-thread hexagon bolts (G30), Spring washers (G28), Plain washers (G27) and Backing block (G14) to secure the remaining two holes in the base plate.
- 2. Importance: All bolts are locked in place without shaking.



WARNING: Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working.

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
G14	Backing block	2	G29	Full-thread hexagon bolts M12*50	2
G27	Plain washers φ12	4	G30	Full-thread hexagon bolts M12*30	2
G28	Spring washers φ12	4			

## 4.Install the Quick change module



#### Installation steps:

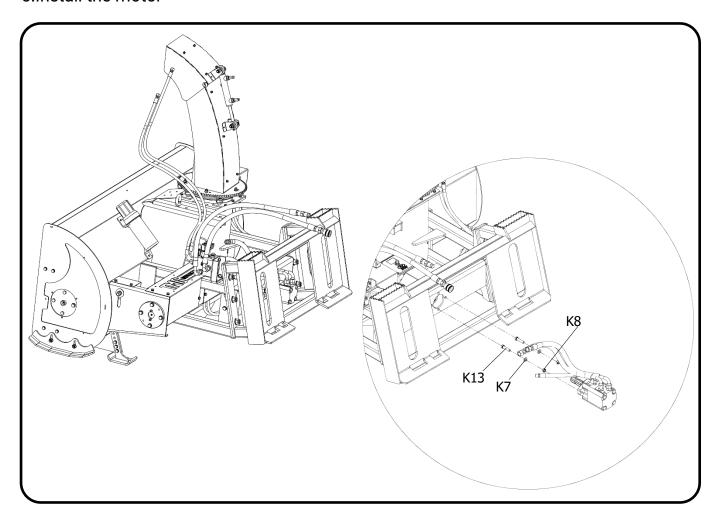
- 1. Mounting of Front quick change weldmen (L1) on host with fully threaded hexagonal bolts (L3), plain washers (L2) and locknuts.
- 2. Importance: All bolts are locked in place without shaking.



WARNING:Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working.

POS.	DESCRIPTION	QTY	POS.	DESCRIPTION	QTY
L1	Front quick change weldment	1	L3	Full-thread hexagon bolts	6
L2	Plain washer	12	L4	Locknut	6

## 5.Install the motor



## Installation steps:

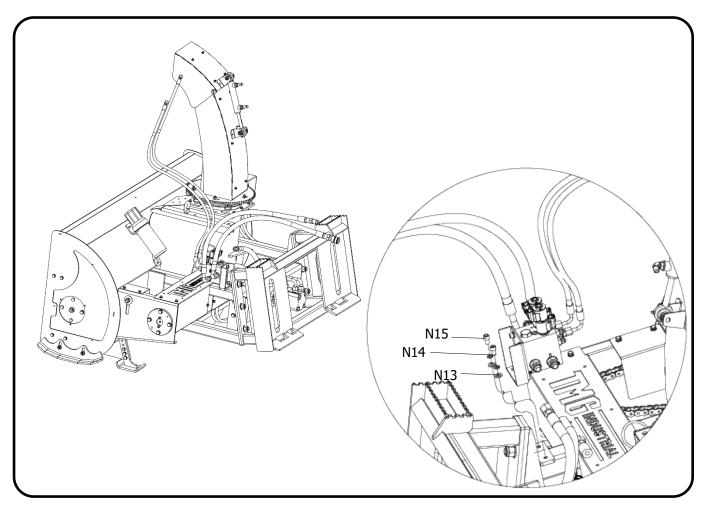
- 1. Install the motor, put Full-thread hexagon bolts M12\*50 (K13) and Plain washers  $\varphi$ 12(K7) to install the motor on the main unit, and then use Locknuts M12(K8)to tighten and fix it.
- 2. Importance: All bolts are locked in place without shaking.



WARNING:Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working.

POS.	DESCRIPTION	QTY	POS.	DESCRIPTION	QTY
K7	Plain washers φ12	4	K13	Full-thread hexagon bolts M12*50	4
K8	Locknuts M12	4			

## 6.Install the Hydraulic motor assembly



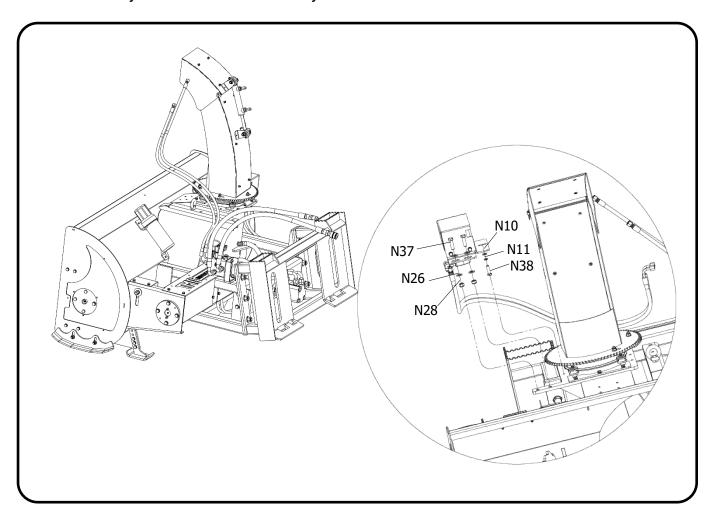
## Installation steps:

- 1. Mounting the Hydraulic Motor Block, Fixed with Hexagon socket head cap screws M8\*20(N15), Spring washers  $\phi$ 8(N14) And Plain washers  $\phi$ 8(N13).
- 2.Importance: All bolts are locked in place without shaking.



POS.	DESCRIPTION	QTY	POS	DESCRIPTION	QTY
N13	Plain washers φ8	3	N15	Hexagon socket head cap screws M8*20	3
N14	Spring washers φ8	3			

## 7. Install the Hydraulic motor assembly



## Installation steps:

- 1. Mount the hydraulic motor assembly on the main unit, first fix the rear hydraulic motor mount with Full-thread hexagon bolts(N37), Plain washers  $\varphi$ 12 (N26)and Locknuts M12 (N28)on the main unit, then fix the side hydraulic motor mount with Full-thread hexagon bolts M10\*35 (N38), Spring washers  $\varphi$ 10(N11) and Plain washers  $\varphi$ 10(N10).
- Importance: All bolts are locked in place without shaking.
   WARNING:Once the assembly bolts are not fastened in place, there will be abnormal noises when the machine is working.



POS.	DESCRIPTION	QTY	POS.	DESCRIPTION	QTY
N10	Plain washers φ10	1	N28	Locknuts M12	2
N11	Spring washers φ10	2	N37	Full-thread hexagon bolts M12*40	2
N26	Plain washers φ12	4	N38	Full-thread hexagon bolts M10*35	2

# **CONNECTING SKID STEER LOADER**

#### 1. About the snow blower

This snow blower is designed to be lightweight and compact, so it can keep running well while working. It can work easily in snowy environments such as gardens and long driveways, as well as wet snow. This snow blower is flexible and efficient and can be easily connected to the Skid Steer Loader

#### 2. Attaching the Snow blower to the Skid Steer Loader

NOTE: Before attempting to attach the snow blower to the skid steer loader, verify that all hydraulic couplings are compatible.



WARNING - Improper attachment to the skid steer loader may cause personal injury.

- 1. Place the snow blower attachment on a level surface.
- 2. Position and align the skid steer loader to the rear of the attachment, within proximity of the front of the skid steer loader.
- 3. Insert and connect the skid steer loader into the attachment.
  - Slowly position your skid steer loader towards the rear of the snow blower.
  - Slowly insert the top edge of your quick attach into the top rail of the snow blower from underneath.
  - As the top of the quick attach aligns into the snow blower, slowly roll your quick attach back towards the machine until the entire quick attach locks into the mount.
     Using either your power attach or manual levers, lock the snow blower in place.



- 5. Close latches (or other locking mechanism) to secure the attachment to the skid steer loader.
- 6. Using the skid steer loader, raise the attachment and move the attachment to ensure hydraulic lines are clear of air and operate properly.

CAUTION – Hydraulics should operate in an even and smooth manner. Hydraulic movement that is not even and smooth may indicate that air is in the hydraulic lines.

- 7. Lower the attachment to ground level.
- 8. Inspect that the attachment is mounted properly and securely. If the attachment does not meet this requirement, follow the instructions to remove the snow blower and re-attach using the instructions above.



WARNING – Improper disconnection may result person injury or damage to the attachment and carrier machine.

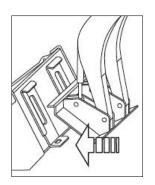


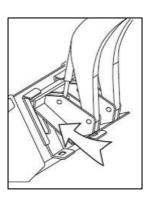
CAUTION – All hydraulic connections must be clean and free of debris before disconnection.

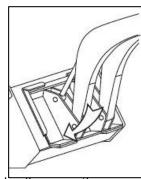
- 1. Using the carrier machine, lower the attachment to the ground.
- 2. To prevent contamination, remove any dirt and debris from the couplings. Disconnect the hydraulic connection between the attachment and the carrier machine.

NOTE: Hydraulic connections must be disconnected before disengaging latches to prevent damage to the carrier machine or the attachment.

3. Disengage the carrier machine latches (or other locking mechanisms) from the attachment.







# **CHECK BEFORE OPERATING**

#### Check before operating

Before operating the machine, check the following:

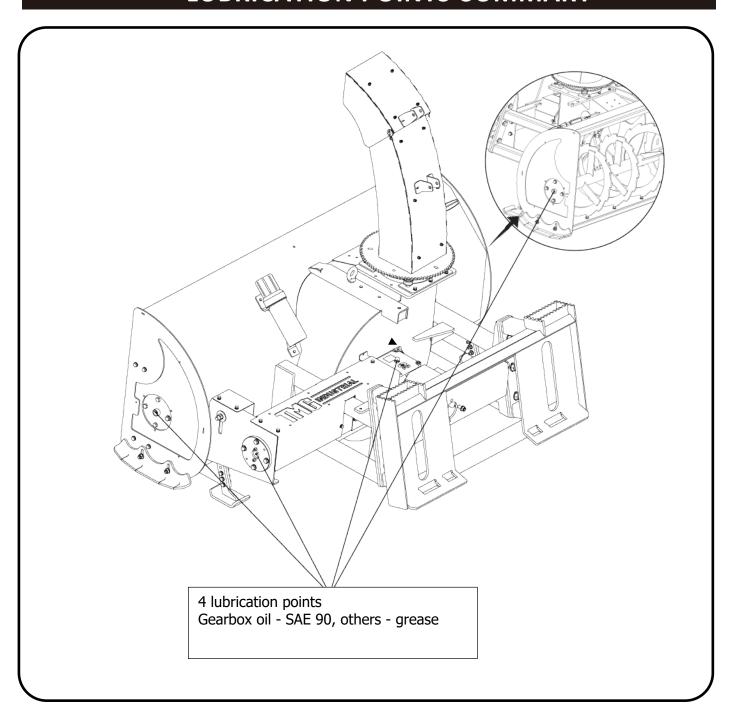
- 1. Check that the SNOW BLOWER is properly attached to the tractor by inserting the safety latch.
- 2. Check that moving parts are free of any debris or tangled material.
- 3. Check that the machine is lubricated according to the schedule listed in the Maintenance section.
- 4. Check and ensure that all guards, shields and guards are in place, secured and working as designed.
- 6. Check that the snow outfeed assembly is turned in the proper working direction.
- 7. Check that the fan and angle go in the right direction of movement, the fan runs in the clockwise direction (towards the machine) for the right, and the angle rotates in the working direction.
- 8. Check and tighten all fasteners. Make sure the equipment is in good condition.
- 9. Check that appropriate personal protective equipment is available and being used.
- 10. Check that jewellery and loose clothing are not worn. Long hair must be tied behind the head.

#### 2. Before startup

Each operator must be trained in the proper operating procedures prior to operating the machine. The new machine or machine long unused, you must first idling operation.

- · Review location of the controls, their function, and movement direction when activated.
- Follow the Pre-Operation Check.
- · Set up the machine correctly.

# **LUBRICATION POINTS SUMMARY**



# **OPERATING FINISH**

#### 1.SNOW REMOVAL METHODS

When removing snow, do not use the snow blower as a dozer blade to push snow. Let the snow blower work its way through deep drifts. If the speed of your skid steer loader is too fast, the snow blower may become overloaded and clog. For best results, raise the snow blower and remove a top layer of snow. A second pass with the snow blower will remove the remaining snow.

IMPORTANT: Use full RPM power when removing wet, sticky snow. Low RPM power will tend to clog

WARNING: Do not use hands or feet to unclog chute. Do not attempt to clear clogged chute of snow while skid steer loader engine is running. If the chute clogs, disengage the drive shaft, shut off the skid steer loader engine, remove the ignition key, wait for all movement to stop, and then clear the snow from the chute.

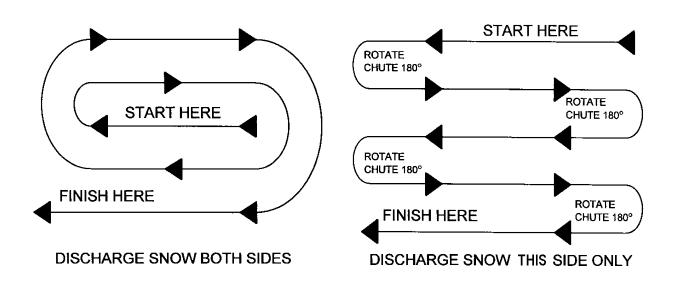
A definite pattern of operation is required to thoroughly clean the snow area. These patterns will avoid throwing snow in unwanted places as well as eliminating a second removal of snow

#### **PATTERN 1**

#### **DISCHARGE SNOW BOTH SIDES**

#### **PATTERN 2**

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#### PATTERN1:

Where it is possible to throw the snow to the left and right (above), as on a long driveway, it is advantageous to start in the middle. Plow from one end to the other, throwing snow to both sides without changing the direction

#### PATTERN2:

If the snow can only be thrown to one side of the driveway or sidewalk (above), start on the opposite side. At the end of the first pass, rotate the discharge guide 180 degrees for the return pass. At the end of each succeeding pass, rotate the discharge guide 180 degrees to maintain direction of throw in the same area

# **OPERATING FINISH**



**WARNING:** Provide adequate blocking before working under the snow blower when in the raised position.

- 1. Park the machine on dry, level ground. Turn ignition to OFF and remove the key.
- 2. Allow the engine to idle for 5 minutes to cool.
- 3. Remove large debris such as clumps of dirt, grass, crop residue, etc. from machine.
- 4. Inspect machine and replace worn or damaged parts.
- 5. Replace any safety decals that are missing or not readable.

#### 1.DRIVELINE

IMPORTANT: When the snow blower is not used for more than two weeks, perform driveline maintenance and always store it in a dry place, away from bad weather conditions.

#### 2. BOLTS

Check bolts for tightness to ensure the blower is in safe working condition.

#### 3. Hydraulic System

One of the most important things you can do to prevent hydraulic system problems is ensure that your skid steer loader's reservoir remains free of dirt and contamination. Use a clean cloth to wipe hose ends before attaching them to your skid steer loader. Replace your skid steer loader's hydraulic filter element at the prescribed intervals. These simple maintenances will go a long way to prevent occurrence of control valve and hydraulic cylinder problems.

#### 4.Gearbox

NOTE: Do not overfill! Snow Blower should be level when checking oil. Oil expands when hot, therefore, always check oil level when cold.Remove oil level plug shown with arrow. If oil is below bottom of plug hole, add recommended gear lube through oil level plug hole until oil flows out of the hole. Reinstall and tighten oil level plug.

#### 5. LUBRICATION

Use oil or a grease gun and lubricate as follows:

DESCRIPTION	INTERVAL	LUBRICATION REQUIRED	
Driveline	8 hours	Grease each universal joint. Separate the sliding parts and cover each one of them with grease	
	16 hours	Oil the push pins	
Chain 4 hours and after each operation		Lubricate with chain lube	
Drive Shaft 24 hours of operation		Grease fitting on shear plate	
Gearbox	Every month	Check oil level. Check oil level. If needed, add 1 Qt SAE 90 oil	
	250 hours	Replace oil	
Bearing 24 hours of operation		Grease each auger bearing	

# MAINTENANCE SCHEDULE

Perform maintenance procedures at time shown or hour interval, whichever comes first.

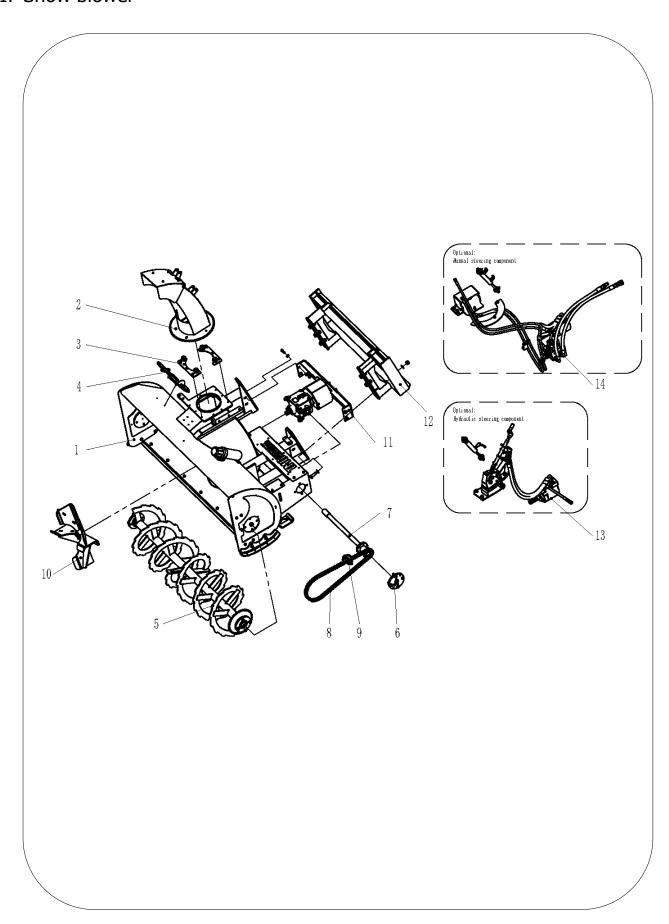
Maintenance Procedure	Before Each Use	Monthly/ 20 Hours	Every 6 Mo./ 100 Hours	Annually/ 300 Hours
Check General Equipment Condition	Χ			
Lubricate Gear Shaft & Auger Shaft		X	Х	Х
Lubricate Wheels & Discharge Chute				Х
Check Fuel Strainer	Х		Х	Х
Check/Clean Spark Plug			Х	Х
Replace Spark Plug				Х
Check/Adjust Idle Speed			Х	Х
Check/Adjust Valve Clearance*			Х	Х
Clean Fuel Tank, Strainer & Carburetor*			Х	Х
Clean Combustion Chamber*				Х
Replace Fuel Lines*				Х

# TROUBLESHOOTING

Problem	Solution
	Obstacles are entangled in auger and/or blower housing.
	Shut Snow Blower down and manually clear auger and impeller housing.
	Impeller jam nut is loose.
	Tighten impeller jam nut.
	Quick couplings did not engage.
	Reconnect quick couplings to skid steer.
	Hydraulic system is not engaged.
	Engage hydraulic system.
	Hydraulic flow from skid steer or tractor rear mounted hydraulic reservoir is
	inadequate.
Not Throwing Snow	Check hydraulic flow at the Snow Blower.
-	Skid steer or tractor rear mounted hydraulic reservoir is low on hydraulic fluid.
	-Add hydraulic oil to skid steer or tractor rear mounted hydraulic reservoir.
	Hydraulic hose has a break.
	Replace hydraulic hose.
	Hydraulic hose has an obstruction.
	Remove obstruction or replace hose.
	Hydraulic line is pinched.
	Fix pinched line
	Hydraulic lines have air in them.
	Engage hydraulics to Snow Blower until air is purged from hydraulic lines.
Excessive Vibration	Discharge fan blade is bent or missing
Gearbox Noisy	Check oil level
Auger is Not Turning	Replace shear bolts on auger torque limite
Discharge Fan is Not Turning	Tighten the clutch bolt of the PTO drive shaft
	Disengage the auger and drive controls, wait ten seconds for the auger to stop
	rotating. Loosen the two hex nuts on the skid show on either side of the snow
Snow not completely	blower.
removed from surface	•Raise the skid shoes so the entire bottom surface of the skid show rests on the
Skid shoe needs adjustment	ground evenly. Retighten the hex nuts on both sides. This adjustment allows the
	auger to come into closer contact with the ground surface.
Chow blower continually	Operate at a slower pace to allow the snow blower to dispel snow through the
Snow blower continually	discharge chute.
clogs	•Forcing the snow blower to move faster than it can remove the snow will result
Machine does not propel     itself forward	in clogged auger and/or discharge chute. Do not overload the blower in
Itacii Iuiwaiu	extremely heavy or wet snow.

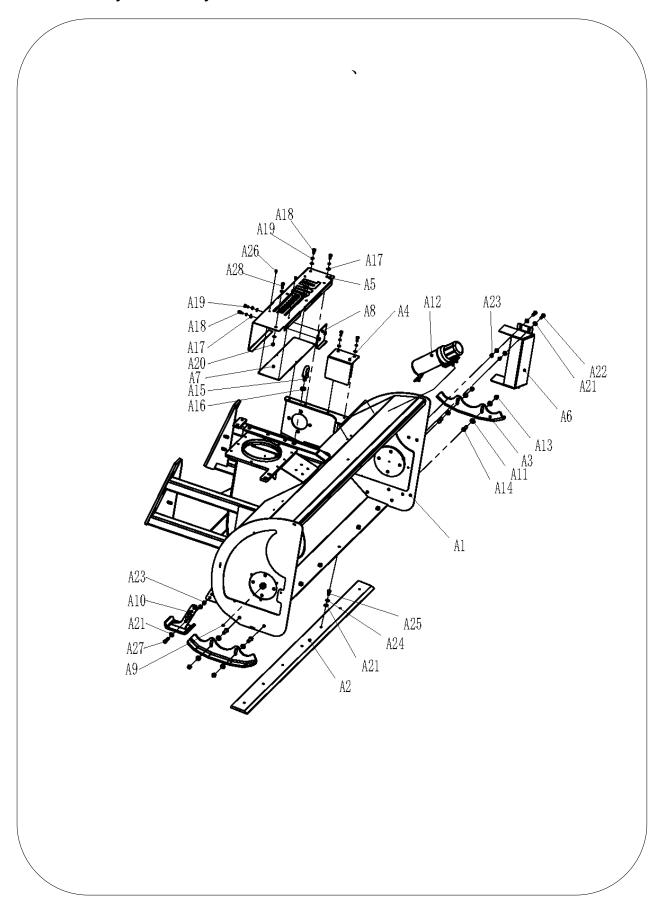
# **EXPLODED VIEW & PARTS LIST**

## 1. Snow blower



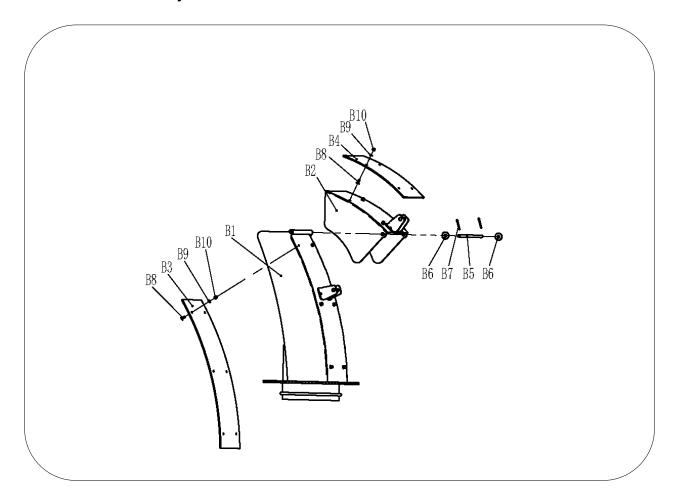
PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
1	Bucket body assembly	1	8	Roller chain	1
2	Outfeed assembly	1	9	Tensioner as	1
3	Pressboard assembly	2	10	Fan assembly	1
4	Snow shovel assembly	1	11	Gearbox as-rear	1
5	Stirring assembly	1	12	quick change module	1
6	Bearing block as-drive shaft	1	13	Manual steering component(optional)	1
7	Drive as-torque limiter	1	14	Hydraulic steering component(optional)	1

# 2. Bucket body assembly



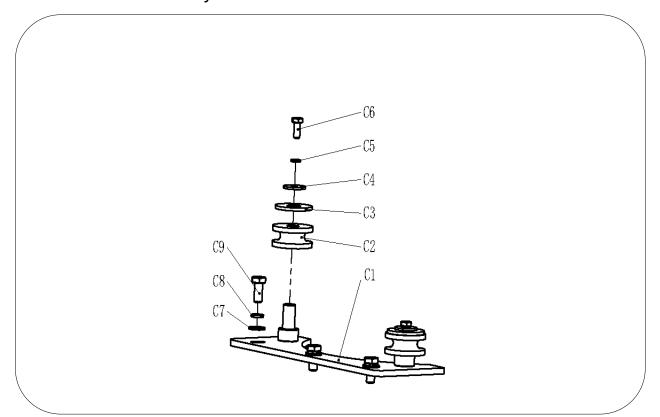
PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
A1	Hood weldment	1	A15	Eye bolt M16*28	1
A2	Blade	1	A16	Hexagon thin nuts	1
A3	skid plates	2	A17	Plain washers 8	8
A4	Sprocket cover	1	A18	Full-thread hexagon bolts M8*20	6
A5	Transmission shaft cover	1	A19	Spring washers 8	6
A6	Front baffle	1	A20	Locknut M8	1
A7	Color board	1	A21	Plain washers φ10	27
A8	Seal plate welding	1	A22	Full-thread hexagon bolts M10*30	4
A9	Grease nipples M6	2	A23	Locknut M10	1
A10	Leg weldments	2	A24	Spring washers 10	7
A11	Plain washers 12	8	A25	Full-thread hexagon bolts M10*20	4
A12	Universal decal assembly	1	A26	Open end Oind rivets	10
A13	Locknuts M12	4	A27	Full-thread hexagon bolts M10*45	6
A14	Full-thread hexagon bolts M12*35	4	A28	Full-thread hexagon bolts M8*25	1

# 3. Outfeed assembly



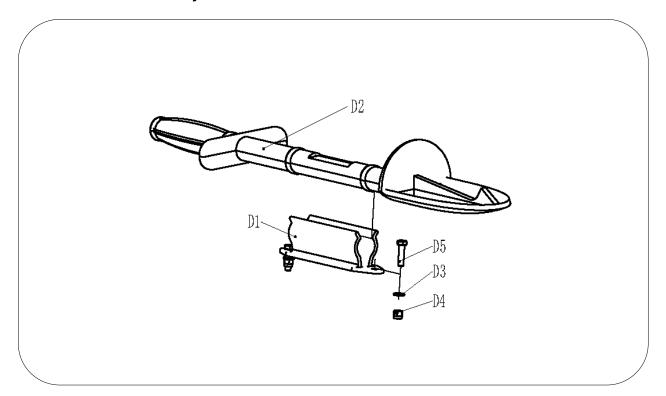
PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
B1	Welding parts of snow discharge cylinder	1	B6	Large plain washers φ10	2
B2	Flap weldment	1	В7	Split pins 4*32	2
В3	Back panel veneer	1	B8	HSCS-Countersunk M6*16	10
B4	Flap cover plate	1	B9	Plain washers φ6	10
B5	Install pin	1	B10	Locknuts M6	10

# 4. Pressboard assembly



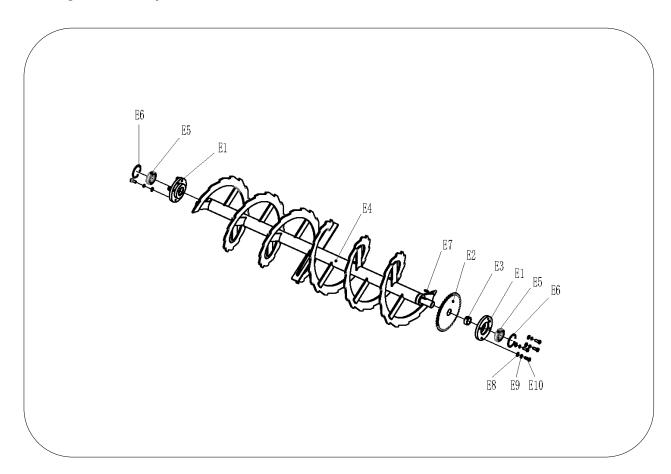
PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
C1	Press plate weldment	1	C6	Full-thread hexagon bolts M6*16	2
C2	pulley	2	C7	Plain washers φ8	3
C3	Large plain washers φ12	2	C8	Spring washers φ8	3
C4	Extra Large plain washer φ6	2	C9	Full-thread hexagon bolts M8*20	3
C5	Spring washers φ6	2			

### 5. Snow shovel assembly



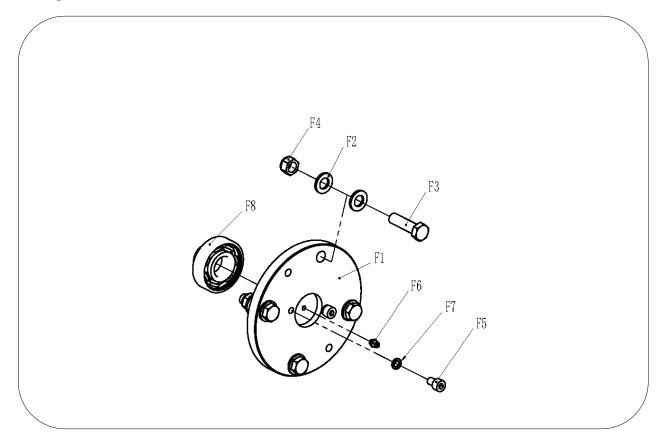
PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
D1	Rubber T1	1	D4	Locknuts M6	2
D2	Rubber T2	1	D5	Full-thread hexagon bolts M5*20	2
D3	Plain washers φ5	2			

### 6.Stirring assembly



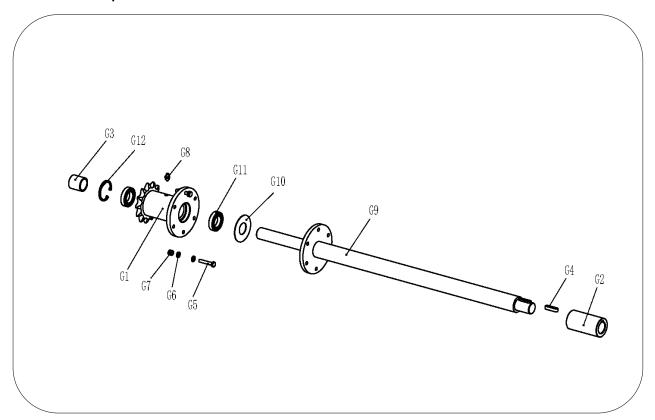
PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
E1	Agitating bearing seat	2	E6	Elastic retainer ring for hole 80A	2
E2	Chain wheel	1	E7	Key 8*30	1
E3	Stirring shaft end bushing	1	E8	Plain washers φ12	8
E4	Stir up welding parts	1	E9	Spring washers φ12	8
E5	Deep groove ball bearing 6208-RS	2	E10	Full-thread hexagon bolts M12*30	8

### 6. Bearing block as-drive shaft



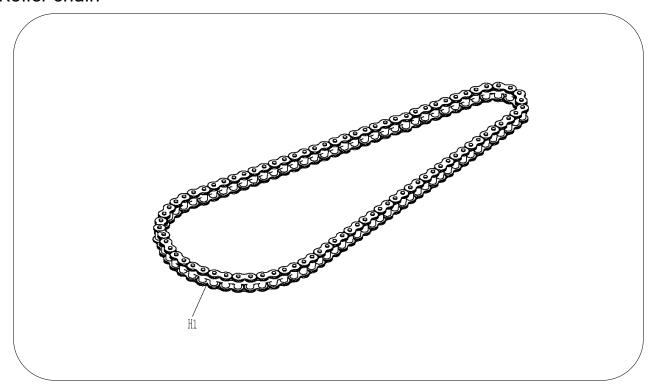
PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
F1	Drive shaft bearing seat	1	F5	Hexagon socket head cap screws M8*12	2
F2	Plain washer φ12	8	F6	Grease nipples M6	1
F3	Full-thread hexagon bolts M12*45	4	F7	Spring washers φ8	2
F4	Locknuts M12	4	F8	Deep groove ball bearing 6305-RZ	1

### 8.Drive as-torque limiter



PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
G1	Clutch drive shaft welding	1	G7	Full-thread hexagon bolts M6*35	2
G2	Chain wheel	1	G8	Locknuts M6	2
G3	Gearbox connecting sleeve	1	G9	Sprocket bushing	1
G4	Key 8*32	2	G10	Rubber	1
G5	Grease nipple M8*1	1	G11	Deep groove ball bearing 61905-2RS	2
G6	Plain washer φ6	4	G12	Elastic retainer ring for hole 42A	1

#### 9.Roller chain

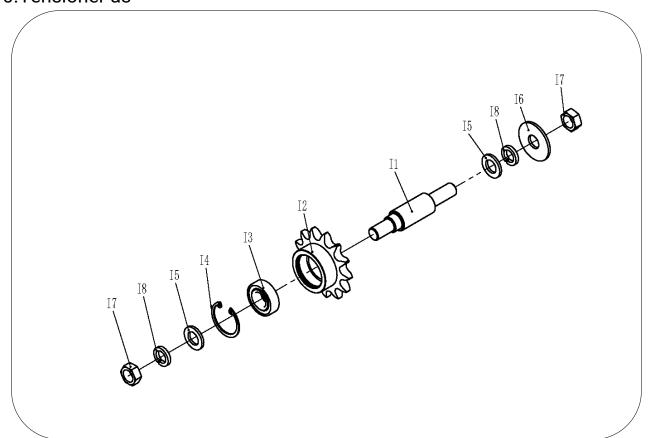


# **PARTS LIST**

PART NO.	DESCRIPTION	QTY
H1	Roller chain GB/T 1243-12A-1*86	1

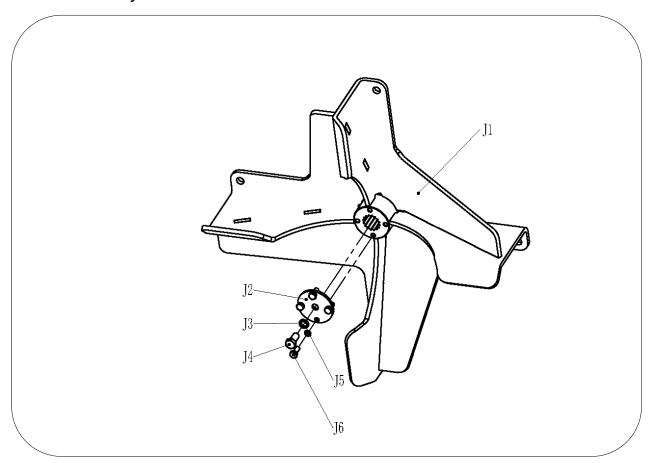
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#### 10.Tensioner as



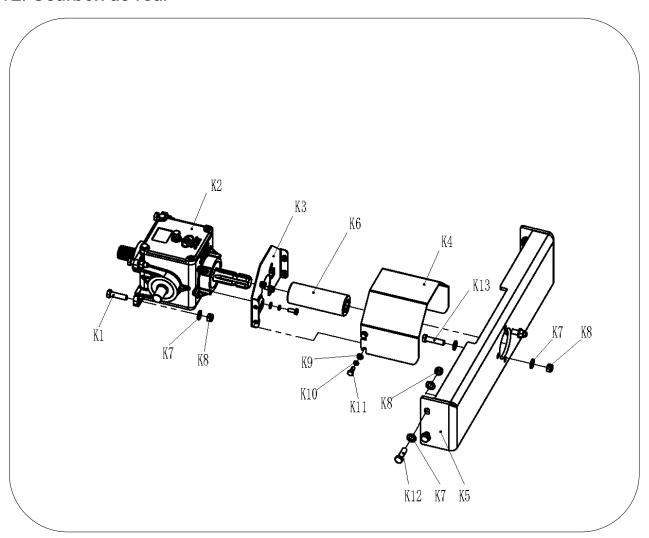
PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
I1	Tighten axle	1	15	Plain washers φ16	2
12	Chain wheel	1	16	Large plain washers φ16	1
13	Deep groove ball bearing 6004-2RS	1	17	Hexagon Nuts 5	2
14	Elastic retaining ring 42A for holes	1	18	Spring washers φ16	2

### 11. Fan assembly



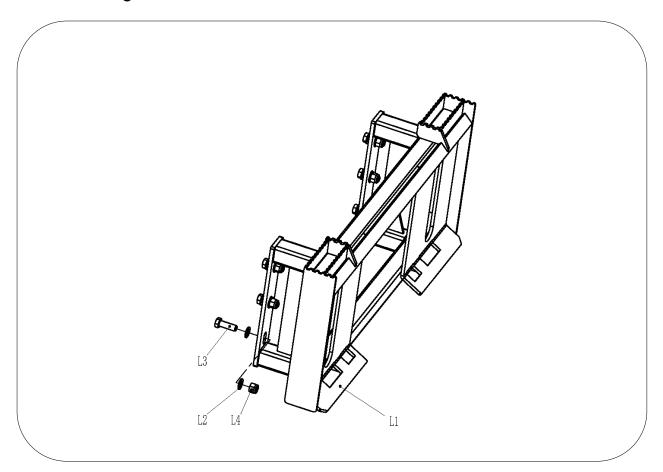
PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
J1	Fan weldment	1	J4	Full-thread hexagon bolts M12*25	1
J2	Fan gasket	1	J5	Spring washers φ8	4
J3	Spring washers φ12	1	J6	Full-thread hexagon bolts M8*20	4

#### 12. Gearbox as-rear



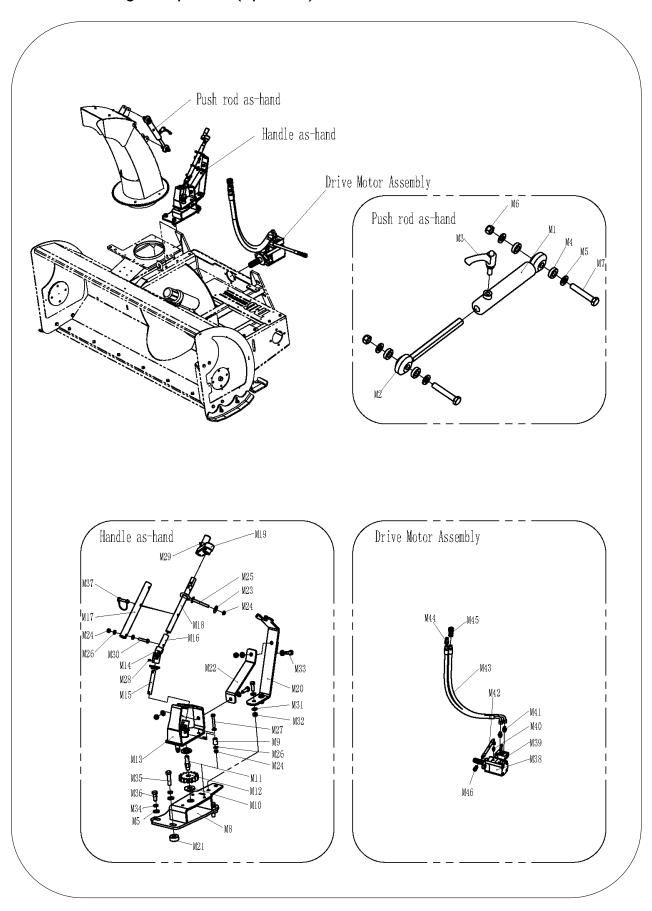
PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
K1	Full-thread hexagon bolts M12*45	4	K8	Locknuts M12	10
K2	Gear box	1	K9	Plain washers φ8	8
K3	Welding of shield bottom plate	1	K10	Spring washers φ8	8
K4	PTO Guard	1	K11	Full-thread hexagon bolts M8*20	8
K5	Motor mounting plate	1	K12	Full-thread hexagon bolts M12*40	4
K6	Splined sleeve	1	K13	Full-thread hexagon bolts M12*50	2
K7	Plain washers φ12	16			

### 13. Quick change module



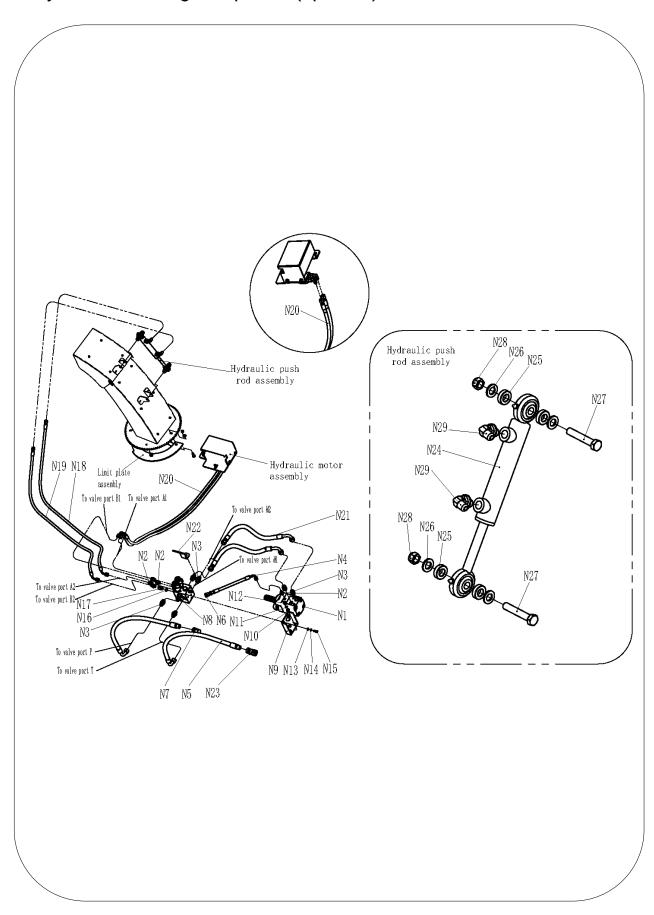
PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
L1	Front quick change weldment	1	L3	Full-thread hexagon bolts M18*55	6
L2	Plain washers	12	L4	Locknuts M18	6

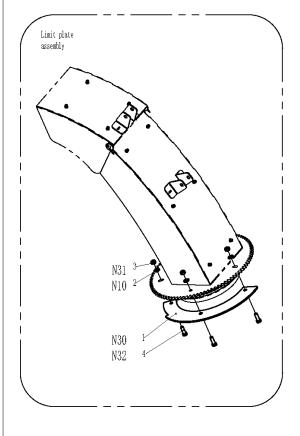
#### 14. Manual steering component(optional)

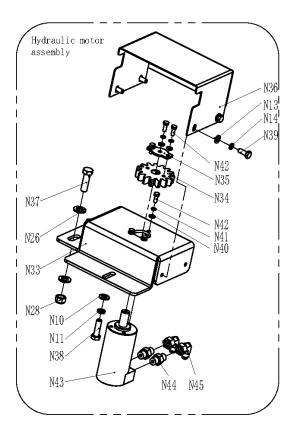


PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
M1	Cylinder body welding parts	1	M24	Locknuts M8	5
M2	Push rod welding parts	1	M25	Welding of eyebolt	1
М3	Handle M10*1.25*25	1	M26	Plain washerS φ8	8
M4	Spacer sleeves	4	M27	Full-thread hexagon bolts M8*50	3
M5	Plain washers φ12	8	M28	Hexagon socket screws with flat point M6*10	4
М6	Locknuts M12	2	M29	Hexagon socket screws with flat point M5*8	1
M7	Full-thread hexagon bolts M12*70	2	M30	Full-thread hexagon bolts M8*40	1
M8	Handle mount welded	1	M31	Plain washers φ10	8
M9	Positioning sleeve	3	M32	Locknuts M10	4
M10	Rotary spacer	3	M33	Full-thread hexagon bolts M10*30	4
M11	Link bar	1	M34	Spring washer φ12	4
M12	Gear	1	M35	Full-thread hexagon bolts M12*50	2
M13	Pinion clamp welding	1	M36	Full-thread hexagon bolts M12*30	2
M14	Cardan SQR.G14	2	M37	Pin φ8*45	1
M15	Connecting rod	1	M38	Hydraulic motor	1
M16	Handle link bar	1	M39	Hydraulic Valve	1
M17	Extension bar	1	M40	Transition joints 10 G1/4	1
M18	Adjusting rod weldment	1	M41	Transition joints 16 G1/2	2
M19	Handle	1	M42	Motor Drain Pipe	1
M20	Manual rocker support plate	1	M43	Hydraulic oil Pipes (connection to mini skid steer loader)	2
M21	Backing block	2	M44	Quick-change fittings NPT1/2 (male-flat)	1
M22	Tie bar	1	M45	Quick-change fittings NPT1/2 (female-flat)	1
M23	Extra Large plain washer	1	M46	Quick-change fittings NPT3/8 (female-flat)	1

#### 15. Hydraulic steering component(optional)







PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
N1	Hydraulic motor	1	N24	Hydraulic cylinder	1
N2	Transition joints 10 G1/4	5	N25	Hydraulic assembly spacer	4
N3	Transition joints 16G1/2	6	N26	Plain washers φ12	8
N4	Motor Drain Pipe	1	N27	Full-thread hexagon bolts M12*70	2
N5	Hydraulic oil pipe (connected to sliding loader)	1	N28	Locknuts M12	4
N6	NPT3/8 quick-change fittings (female-flat type)	1	N29	Rotatable right angle fitting	2
N7	NPT1/2 quick-change fittings (male-flat type)	1	N30	Snow chute limit plate	1
N8	Priority Flow Solenoid Valve	1	N31	Locknuts M10	3
N9	Solenoid valve mouting plate	1	N32	Full-thread hexagon bolts M10*30	3
N10	Plain washers φ10	6	N33	Hydraulic motor base	1
N11	Spring washers φ10	3	N34	Gear	1
N12	Hexagon socket head cap screws M10*16	2	N35	press plate	1
N13	Plain washers φ8	7	N36	Protective cover	1
N14	Spring washers φ8	7	N37	Full-thread hexagon bolts M12*40	2
N15	Hexagon socket head cap screws M8*20	3	N38	Full-thread hexagon bolts M10*35	1
N16	Combined sealing gaskets BS/A-13.7×20.6×2	1	N39	Full-thread hexagon bolts M8*20	4
N17	Transition joints 10 G1/4	1	N40	Plain washers φ6	6
N18	Hydraulic oil pipe A (connected to Hydraulic Cylinder)	1	N41	Spring washers φ6	6
N19	Hydraulic oil pipe B (connected to Hydraulic Cylinder)	1	N42	Full-thread hexagon bolts M6*16	6
N20	Hydraulic oil pipe (connected to Hydraulic steering motor)	2	N43	Steering hydraulic motor	1
N21	Hydraulic oil pipe (connected to Fan hydraulic motor)	2	N44	Motor joint 10 UNF9/16	2
N22	Oil pipe bracket	1	N45	Right Angle Joint	2
N23	NPT1/2 Quick-Change Fittings (Female-Flat Type)	1			