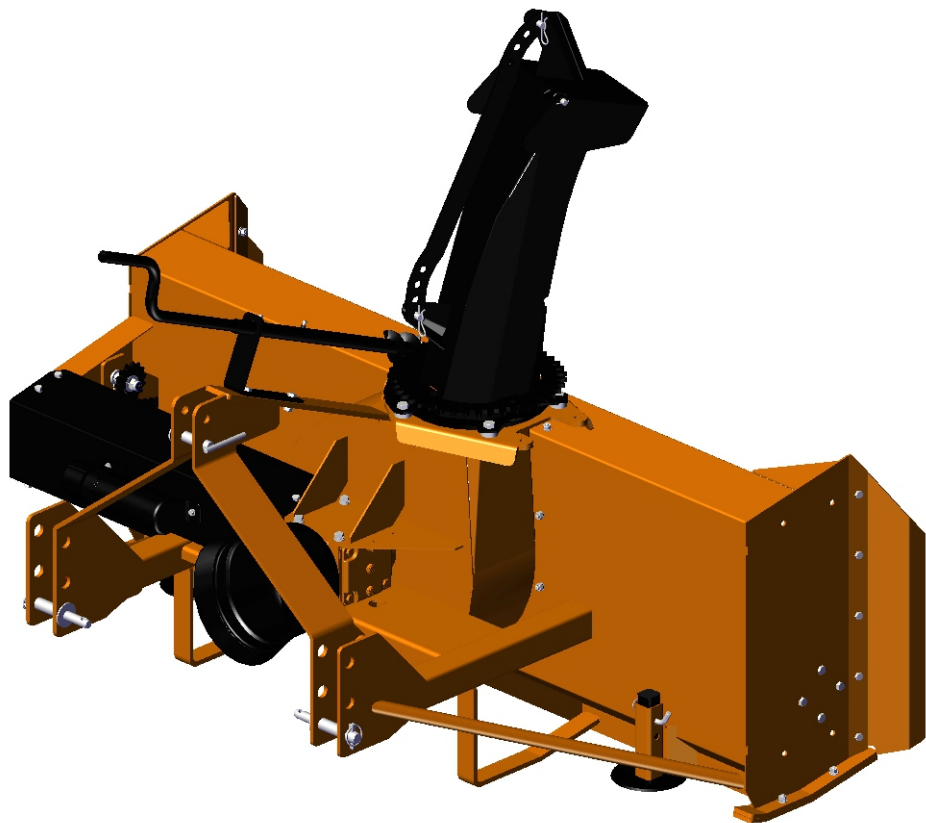


# FARM-MAXX

## OPERATOR'S MANUAL



## FARMMAX SNOW BLOWER

**Tirth Agro Technology Private Limited**

An ISO 9001:2015 Certified Company



## FOREWORD

This manual contains valuable information about FARMMAXX SNOW BLOWER. It has been carefully prepared to give you helpful suggestions for operating, adjusting, servicing repair parts. Keep this manual in a convenient place for quick and easy reference. Study it carefully. You have purchased a dependable and sturdy SNOW BLOWER, but only by proper care and operation can you expect to get the service and long life designed and built into it. RIGHT-HAND AND LEFT-HAND sides are determined by watching from the tractor side.

Sometime in the future your SNOW BLOWER may need new parts to replace those are worn or broken. If so, go to nearest FARMMAXX dealer and provide him the model and part number.

Customer information\_\_\_\_\_

Name \_\_\_\_\_

Purchased from\_\_\_\_\_

Purchased date \_\_\_\_\_

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

**Part Number:**

**Publication date:** 20/07/2023 Ver-00

**Language:** English

**Produced by:**

**Tirth Agro Technology Private Limited**

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## HOW TO USE THIS MANUAL

This Operators Manual describes the methods for operation and precaution for using **FARMMAXX SNOW BLOWER**. It contains specifications as well as the maintenance and operating procedures for FARMMAXX SNOW BLOWER.

Contents pages are provided with Major Groups and detailed content list at the beginning of the manual.

For information on components/parts refer to the parts catalogue.



**The Safety Alert Symbol used throughout this manual and on safety decals of the machine indicates the presence of potential hazard to the operator. When you see this symbol, be alert and carefully read the message that follows it.**

The Safety Alert Symbol is used in conjunction with following Signal Words, according to the degree of possible injuries that may result operating the implement:



Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.



Indicates a potentially hazardous situation that, 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.



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

## IMPORTANT

Indicates instructions or procedures that, if not observed, can cause damage to equipment or environment.

READ, UNDERSTAND, and FOLLOW the safety messages following the Safety Alert Symbol and Signal Words. Failure to comply with safety messages could result in serious bodily injury or death.



## WARRANTY

Tirth Agro Technology Pvt. Ltd. offer the following warranty to the purchaser of FARMMAXX SNOW BLOWER mentioned herein above subject to the conditions set out herein after provided the FARMMAXX SNOW BLOWER shall be in the possession of and used by such purchaser as from the date of delivery.

Tirth Agro Technology Pvt. Ltd. warrants its products for a period of 1 year and will replaced at its factory and any part or parts there of that shall be returned, with transportation charges prepaid and which, when examined by us, shall disclose if to be defective, but this warranty shall not apply to implements or parts that have been subjected to negligence, of accident, or that have been altered or repaired or used with non-genuine parts.

## CONDITIONS

- 1). The purchaser of FARMMAXX SNOW BLOWER will strictly follow the instructions given in the instruction manual, provided by the company along with the FARMMAXX SNOW BLOWER at the time of delivery. Changes if any, resulting in improper usage will not be covered by the warranty. This warranty will automatically terminate on the expiry of warranty period of six months even the FARMMAXX SNOW BLOWER may not be in use for any time during the warranty period for any reason whatsoever including any technical reasons and time taken for such repairs / replacements of parts, and in transit, whether under this warranty or otherwise shall not be excluded from the warranty period.
- 2). Company will make every effort to carry out repairs / replacements of parts under this warranty as soon as possible. It is expressly made clear that the company shall not be liable to do within any specific period of time.  
In the event of repairs / replacement of any parts, this warranty will thereafter continue to remain in force only for the unexpired period of warranty.
- 3). It is entirely left to company discretion to affect repairs / replacements of parts at the site of delivery or at the service points of its branches of authorized representatives. The defective parts which has/have been agreed to be replaced, should be returned to the company without any further claim.
- 4). The warranty shall not cover any consequential or resulting liability, damage or loss arising directly or indirectly out of any defect in the FARMMAXX SNOW BLOWER. This warranty shall be strictly limited to repairs and replacement of the defective parts specified in the warranty at our end and does not cover any reimbursements of labor charges for any repairs so earned out at dealer/client end.
- 5). This warranty shall not be extended in any case forwards payments of any monetary consideration whatsoever of replacement or return of the FARMMAXX SNOW BLOWER. The purchaser of FARMMAXX SNOW BLOWER wills itself fully responsible for model selection and series for purchasing machine.

- 6). This warranty does not cover excise duty, CST or state sales tax and octroi and other local taxes payable on any of the parts which the company may supply or repairs free of cost during the warranty period.

This warranty also does not cover the cost of packaging, to and fro freight and transportation charges etc., on the defective parts of the FARMMAXX SNOW BLOWER sent to the service station or its Branches or its Authorized Representative.

**7). THIS CONTRACT WILL BE INEFFECTIVE AND INOPERATIVE IF:**

- a). The FARMMAXX SNOW BLOWER has not been delivered, assembled, started and put into operation by the company or it's Authorized Representative.
  - b). The duly filled up warranty card is not in our possession within 15 days from the date of delivery.
  - c). The FARMMAXX SNOW BLOWER parts thereof is subjected to neglect, fire, flood or other acts of God or if in the company's opinion any damage has caused to the FARMMAXX SNOW BLOWER or transportation.
  - d). The original numbers are removed, obliterated or altered from the unit.
  - e). Any attempt is made to have the repairs executed by a person or persons, other than the company or its authorized representative.
  - f). Any defect is not informed immediately to the company or its authorized representative, any alteration in warranty card is made.
- 8). Any changes in the location of the FARMMAXX SNOW BLOWER or in its ownership thereof during the warranty period must be intimated in writing to the company or its Authorized Representative ten days before the change. Failure to do so will absolve the company from the obligation under this warranty. Further, in the case of shifting for the continuation of the warranty, the FARMMAXX SNOW BLOWER has to be inspected by the company or it's Authorized Representative before shifting from the original location and before using it at the new location. The inspection fee levied by the company's Authorized Representative as well as the cost of rectification of any damage in transit, detected in the above inspection, and shall be borne by the Purchaser / Owner, If at the time of restarting, the FARMMAXX SNOW BLOWER is found to be in working order by the company or its Authorized Representative, this warranty shall continue to be in force for the remaining period of the warranty. Damage to the FARMMAXX SNOW BLOWER or any part thereof caused, during shifting or transportation is not covered by this warranty.
- 9). The company's employees or its Authorized Representative have no authority to vary the terms of this warranty and the company is totally accountable and authorized in lieu of the warranty or the company's decision is final.

- 10). The agreement of the warranty is executed in Rajkot and claims if any, shall be made only before the courts having jurisdiction in Rajkot and no claim shall be made against the COMPANY outside Rajkot, notwithstanding that the FARMMAXX SNOW BLOWER may have been sold or delivered or any stipulation or commitment in respect thereof may have been made elsewhere.
- 11). This warranty is given in lieu of all other guarantees and condition expressed or implied by law or by any person purporting to act on behalf of the COMPANY and excludes every condition, warranty or guarantee not herein expressly set out.



**Note: The parts / materials that are not covered by the warranty are as follows:**

1. Blade
2. Universal Joint Cross
3. Paint
4. Bearing
5. Rubber Parts
6. Gaskets
7. Fasteners
8. Fabrication

## WHEN THE WARRANTY BECOMES VOID

- Besides the cases specified in the supply agreement, the warranty shall in any case become void:
- Should there have been a maneuvering error, use of an inadequate safety bolt on the Cardan shaft torque limiter or when the Cardan shaft clutch has been damaged through improper maintenance.
- When the implement has been used beyond the specified power limit as given in the technical data chart.
- When following repairs made by the customer without authorization from the manufacturer or owing to instillation of spurious spare parts, the machine is subjected to variations and the damage can be ascribed to these variations.
- Whenever the user or anyone else on his behalf applies equipment to the machine that has not been expressly approved by the manufacturer.
- When the user failed to comply with the instructions in this manual book.

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## 1. ABOUT THIS MANUAL:

The operator must read the manual for a correct understanding of the hazards that may present when operating the machine, as well as for obtain optimum performance from the machine. The manual is part of the machine, it must be kept in good condition and remain with the machine even in case of resale, until its demolition. In case of loss or damage, request a new copy to the Manufacturer or your Dealer. The information, descriptions and illustrations in this manual describe the state of the product at the time of its publication, and may not reflect the product in the future. The Manufacturer reserve the right to make design improvements or changes in specifications without incurring in any obligation to install them on units previously sold. Text, illustrations and drawings of this manual cannot be disclosed or transmitted, in whole or in part, to third parties without the written permission of the Manufacturer. All rights are reserved.

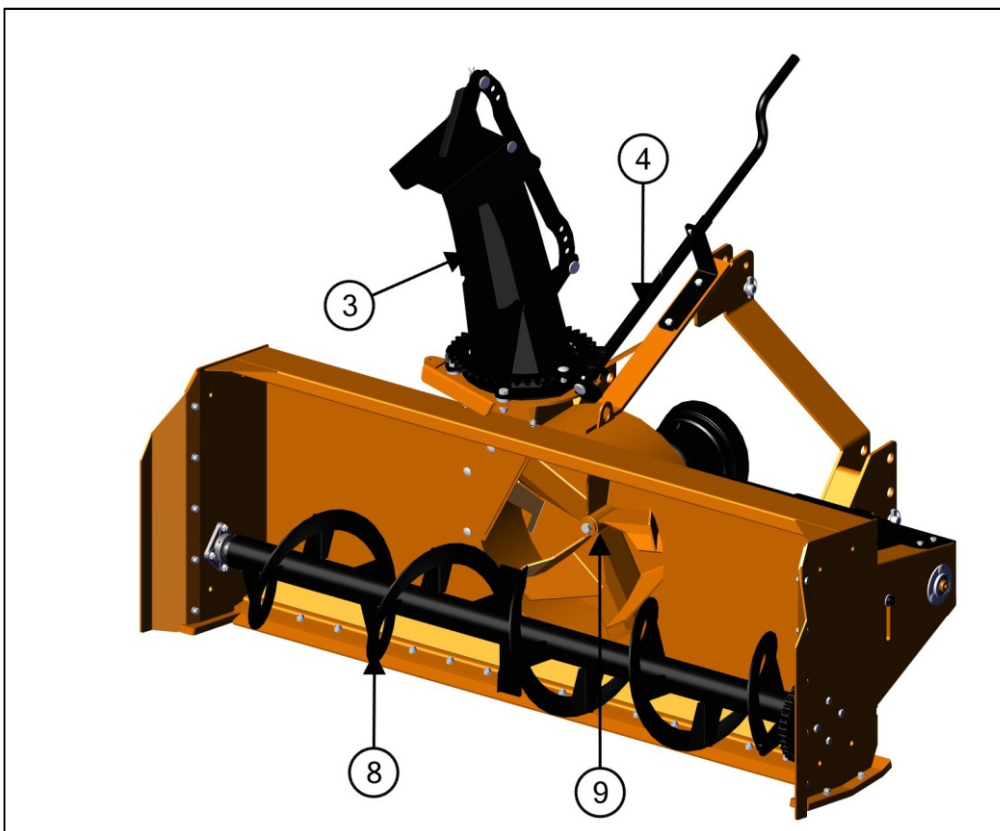
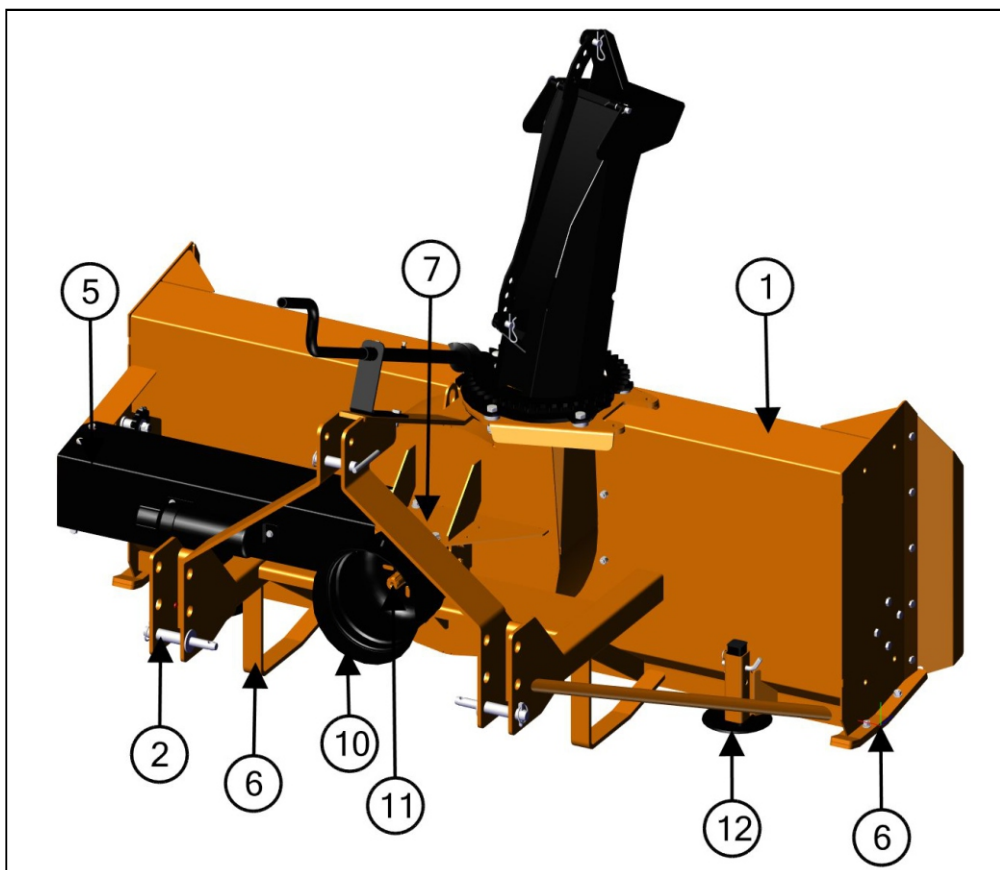
## 2. IDENTIFICATION:

Each SNOW BLOWER is provided with a plate for unique identification (see picture below).

- Manufacturer name and address
- Product
- Model & Type
- Serial number
- Model of machine
- Month & Year of Manufacture
- Size / Working width (mm)
- Type of seeds (Suitability)
- Mass (kg)
- Required size of prime mover, kW/hp

It's recommended to note down all data shown on the plate.

## 3. ABOUT THE MACHINE:





- |                     |                 |                     |
|---------------------|-----------------|---------------------|
| 1. Frame            | 6. Depth Skid   | 11. PTO Input Shaft |
| 2. Top Pin (Bottom) | 7. Gearbox      | 12. Side Stand      |
| 3. Choute           | 8. Spiral Rotor | 13. Hydraulic       |
| 4. Handle           | 9. Fan          |                     |
| 5. Side Drive       | 10. PTO Cover   |                     |



## 4. TECHNICAL SPECIFICATION:

SNOW BLOWER SPECIFICATION				
MACHINE MODEL	UNIT	SSNB-78	SSNB-68	SSNB-54
LENGTH	MM	2110	1860	1610
WIDTH	MM	1300	1260	1130
HEIGHT	MM	1810	1550	1430
WORKING WIDTH	MM	2100	1850	1500
PTO RPM	RPM	540	540	540
TRACTOR POWER SUPPLY	HP	50 HP	35 HP	15-20 HP
WEIGHT	Kg.	410 Kg.	255 Kg.	200 Kg.
MACHINE CATEGORY	-	1 & 2	1	1

## 5. SAFETY

The machine must be used only by authorized and well-trained operators. The operator must have read and understood the instructions of this manual, it must make adequate preparation for the proper use of the machine and must hold a driving license. In case of doubt about the use of the machine and/or the interpretation of this manual, the operator must contact the Manufacturer or the Dealer.

### 5.1 GENERAL SAFETY INSTRUCTION

#### **DANGER**

The machine must be used only by authorized and well-trained operators. The operator must have read and understood the instructions of this manual, it must make adequate preparation for the proper use of the machine and must hold a driving license. In case of doubt about the use of the machine and/or the interpretation of this manual, the operator must contact the Manufacturer or the Dealer.

#### **WARNING**

The manual must always remain with the machine. In case of loss or damage, request a new copy to the Manufacturer or your Dealer.

#### **WARNING**

Follow strictly the rules prescribed by the safety pictograms applied to the machine.

#### **WARNING**

Be sure that all safety pictograms are legible. If pictograms are worn, they must be replaced with others obtained from the Manufacturer, and placed in the position indicated by this manual.

#### **DANGER**

Before using the machine, make sure that all safety devices are installed and in good working conditions. In case of damages of shields, replace them immediately.

#### **DANGER**

Is absolutely forbidden to remove or alter safety devices.

#### **DANGER**

Before starting, and during operation of the machine, make sure there are no people or animals in the operation area: the machine can project material, with risks of serious injury or death.

#### **DANGER**

Do not leave the tractor engine running where in enclosed areas and without a system ventilation capable to dispose the harmful exhaust gases produced in the air.

#### **DANGER**

Pay maximum attention to avoid any accidental contact with rotating parts of the machine.

#### **DANGER**

During operation, adjustment, maintenance, repairing or transportation of the machine, the operator must always use appropriate Personal Protective Equipment (PPE).

## DANGER

Do not operate the implement while wearing loose fitting clothing that can give rise to entanglement in parts of the machine.

## DANGER

Do not operate the implement when tired, not in good condition or under the influence of alcohol or drugs.

## WARNING

If the use of the machine is required at night or in conditions of reduced visibility, use the lighting system of the tractor and possibly an auxiliary lighting system.

## 5.2 EQUIPMENT SAFETY INSTRUCTIONS

### WARNING

Use the machine for its intended purpose only. Improper use can damage the machine and cause serious injury to persons, animals, or death.

## DANGER

The machine should be used by a single operator driving the tractor.

### WARNING

Any unauthorized modification of the machine may cause problems in safety and relieves the Manufacturer from any liability for damages or injuries that may result to operators, third parties and objects.

### WARNING

Before using the machine, familiarize yourself with its controls and its working capacity.

### WARNING

Do not leave the machine unattended with tractor engine running.

### WARNING

Do not operate the machine on too muddy, sandy or rocky soils.

### WARNING

Keep the machine clean from debris and foreign objects which may damage functioning or cause injury.

### WARNING

Do not use the machine if the category of the connecting pins does not match that of the tractor hitch system.

### WARNING

Do not use the machine with missing bolts, screws, pins or safety pins.

### WARNING

Never use the machine to transport or lift people, animals or objects.

## WARNING

Make certain, by adding front ballast that at least 20% of the total weight (tractor, implement and ballast) is on the front axle of the tractor, to ensure stability.

## 5.3 OPERATING SAFETY INSTRUCTIONS

### WARNING

Before using the machine, be sure to have cleared the operating area from obstacles (stones, branches, debris, etc...). Mark all the obstacles that cannot be eliminated (e.g. by means flags).

### DANGER

Never engage the tractor PTO in the presence of people close to the driveshaft. The body, hair or clothing of a person can get caught in rotating parts, causing serious injury or death.

### DANGER

Before engaging the PTO and during all operations, make sure that no person or animal is in immediate area of action of the machine. Never use the machine if people are in his working area.

### DANGER

It's absolutely forbidden to stand near the machine with moving parts.

### WARNING

The operator must operate machine lifting/lowering only from the driving seat of the tractor. Do not perform lifting maneuvers on side or behind the tractor.

### WARNING

Before making changes in direction, turns or going in reverse, slightly lift the machine from the ground after disengaged the power take-off, to prevent damages to the machine.

### DANGER

In presence of steep slopes (greater than 15 degrees) the action of the machine may cause instability of the tractor, with risk of tipping and consequent serious injury or death hazard. Consult the manual for the tractor to determine the maximum slope that the tractor is able to deal with.

### DANGER

Always disengage the PTO before raising the machine, and never engage the PTO with the machine in raised position. The machine might throw objects at high speed, causing serious injury or death.

### WARNING

Never leave the driver's seat when the tractor is turned on. Before leaving the tractor, lower the machine to the ground, disengage the PTO, insert the parking brake, stop engine and remove the key from the control panel.

### DANGER

The PTO shields of tractor and implement sides, the driveshaft shielding and the driveshaft retaining chains must be properly installed and in good condition, to avoid risk of entanglement with serious injury or death.

## DANGER

Before engaging the PTO of the tractor, always make sure that the drive shaft is mounted in the correct direction, and that its clamping elements are properly connected both to tractor side and to implement side.

## WARNING

Stop operating immediately if blades strike a foreign object. Repair all damage and make certain that blower and blades are in good condition before resuming operation.

## WARNING

Always disengage the tractor PTO when the driveshaft exceeds an angle of 10 degrees up or down while operating. An excessive angle with driveshaft rotating can break the driveshaft and cause flying projectiles.

## CAUTION

Avoid clutch's overheating caused by too long or frequent slipping of the clutch, since it can damage the clutch components. Before checking slip clutch, make sure it has cooled. Clutch could be extremely hot and cause severe burn.

## CAUTION

Prolonged use of the machine can cause overheating of the gearbox. Do not touch the gearbox during use and immediately after, it could be extremely hot and cause severe burn.

## WARNING

All adjustment operations on the machine must be performed by qualified and trained operators, with the tractor engine off, the PTO disengaged, the machine lowered to the ground or on security stands, the ignition key off and the parking brake set.

## 5.4 TRANSPORTING SAFETY INSTRUCTIONS

### WARNING

Before transporting, determine the stopping characteristics of the tractor-implement assembly.

### WARNING

Transport only at speeds where you can maintain control of the equipment.

### WARNING

When driving on roads, the machine must be in transport position adequately raised from the road surface, with tractor lifting hydraulics locked so that the machine cannot be lowered accidentally.

## DANGER

The implement may be wider than the tractor. Pay attention during transporting to persons, animals or obstacles exposed.

### WARNING

When turning, use extreme care and reduce tractor speed.

### WARNING

Do not operate the tractor with weak or faulty brakes or worn tires.

## CAUTION

Always use tractor lighting system and auxiliary lighting system for adequate warning to operators of other vehicles, especially when transporting at night or in conditions of reduced visibility.

## DANGER

In case of machine lifting, make sure that the lifting device chosen is suitable to perform the operation safely, and use only the lifting points prescribed for the machine.

## 5.5 MAINTENANCE SAFETY INSTRUCTIONS

### WARNING

All maintenance and repairing operations must be performed by qualified and trained operators, with the tractor engine off, the PTO disengaged, the machine lowered to the ground or on security stands, the ignition key off and the parking brake set.

### WARNING

Perform repairs and replacements necessary to the machine using only original spare parts provided by the manufacturer or your Dealer.

## DANGER

Perform maintenance operations always using appropriate Personal Protective Equipment (protective eye glasses, hard hat, hearing protection, safety shoes, overall and work gloves, filter mask).

## DANGER

During any cleaning and maintenance operations, make sure That there is adequate ventilation to prevent accumulations of toxic vapors in the air.

## CAUTION

Before any maintenance operation, make sure that the parts which may become hot during use (friction clutch, gear box...) have cooled.

### WARNING

Do not perform repairs that you do not know. Always follow the manual instructions and in case of doubt contact the Manufacturer or your Dealer.

## DANGER

Do not swallow fuels or lubricants. In case of accidental contact with eyes, rinse well with water and consult a doctor.

## DANGER

Always keep oils and lubricants out from children

## 5.6 STORAGE SAFETY INSTRUCTIONS

### WARNING

Never leave the tractor unattended with the machine in lifted position. Accidental operation of lifting lever or a hydraulic failure may cause sudden drop of unit with injury or death by crushing.

## **DANGER**

Following operation, or before unhooking the machine, stop the tractor, set the brakes, disengage the PTO, lower the attached machine to the ground, shut off the engine, remove the ignition key and wait for all moving parts to stop.

## **WARNING**

Make sure all parked machines are on a hard, level surface and engage all safety devices.

## **CAUTION**

Place support blocks under the machine as needed to prevent unit from tipping over onto a child and/or an adult. A machine that tips over can result in injury or death.

## **CAUTION**

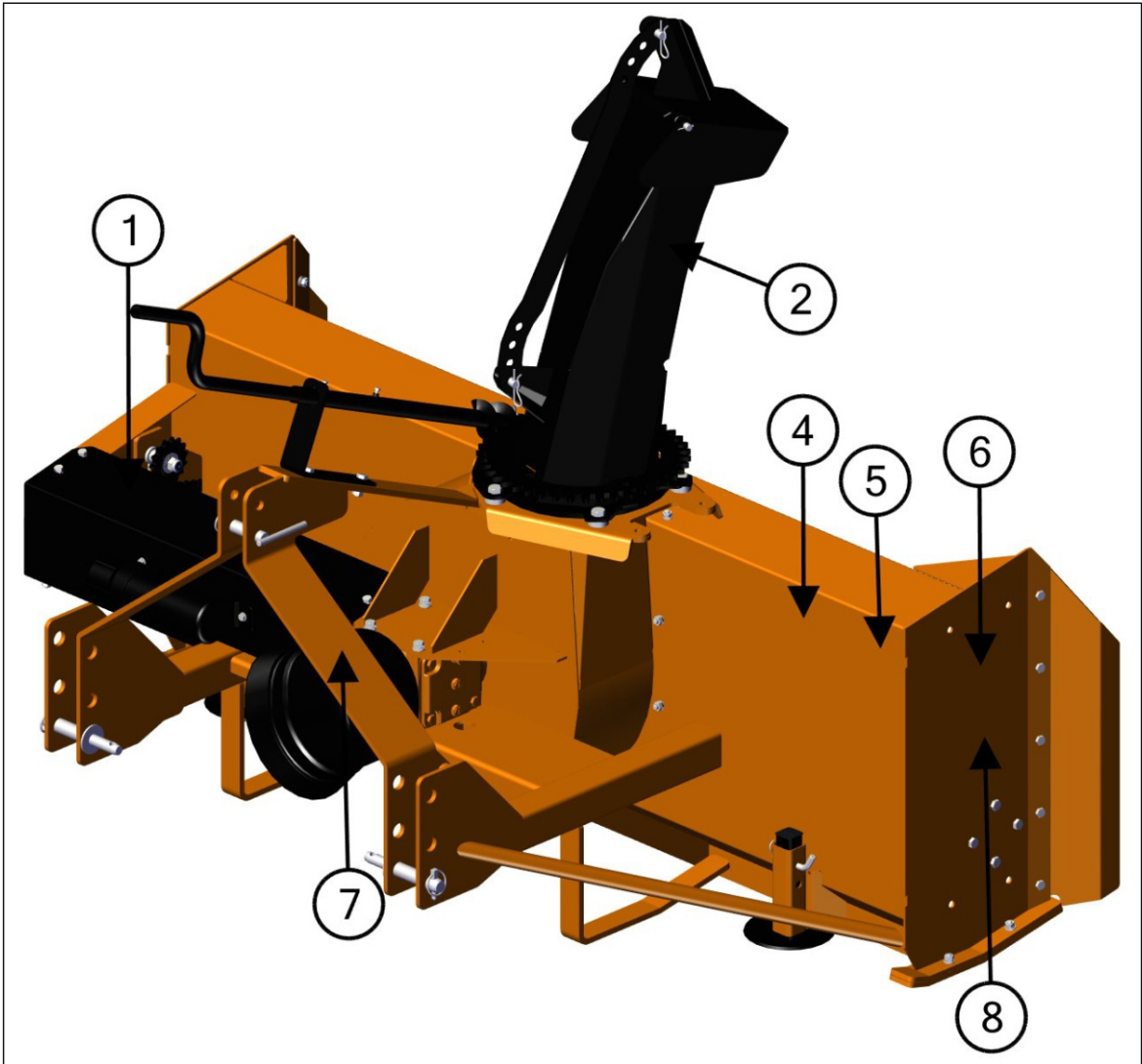
Store the unit in an area away from human activity.

## 5.7 SAFETY LABELS

- The safety labels applied on the machine give fundamental information for using the machine safely.
- Make sure safety labels are in good conditions. If pictograms are worn, they must be replaced with others obtained from the manufacturer and placed in the position indicated by this manual.
- Make sure the safety labels are legible. If necessary, wipe them by a cloth, with soap and water.










## SAFETY LABELS ON MACHINE AND DESCRIPTION



Sr. No.	Part Code	Description	DECALS
1	D1165	WARNING SAFETY COVERS (90 X 45 MM)	



Sr. No.	Part Code	Description	DECALS
2	D1095	THROWN OR FLYING OBJECTS HAZARD	 <p>The decal consists of two yellow rectangular panels. The top panel features a black triangular warning symbol with a person being struck by a flying object. The bottom panel shows a black silhouette of a person standing next to a rectangular object, with a double-headed arrow indicating a distance or clearance.</p>
3	D1098	IMPLEMENT INPUT DRIVELINE	 <p>The decal consists of two yellow rectangular panels. The top panel features a black triangular warning symbol with a person lying on the ground, indicating a crushing or trapping hazard. The bottom panel shows a black silhouette of a hand with a red 'X' over it, and two circular arrows indicating a rotating or moving part.</p>
4	D1038	MAINTENANCE: TURN OFF TRACTOR & REMOVE KEY	 <p>The decal consists of three yellow rectangular panels. The top panel features a black triangular warning symbol with an exclamation mark. The middle panel shows a black silhouette of a key with a red arrow pointing to it, indicating the removal of the key. The bottom panel shows a black silhouette of an open book, representing the operator manual.</p>
5	D1090	WARNING: ALWAYS READ THE OPERATOR MANUAL	 <p>The decal consists of two yellow rectangular panels. The top panel features a black triangular warning symbol with an exclamation mark. The bottom panel shows a black silhouette of an open book, representing the operator manual.</p>

Sr. No.	Part Code	Description	DECALS
6	D1408	STAY CLEAR ROTATING AUGER	
7	D1097	CRUSHING HAZARD BY LINK LIFTING	
8	D1008	GREASE -NEW	

## 6. PREPARING THE TRACTOR

### 6.1 USE YOUR TRACTOR OPERATOR'S MANUAL

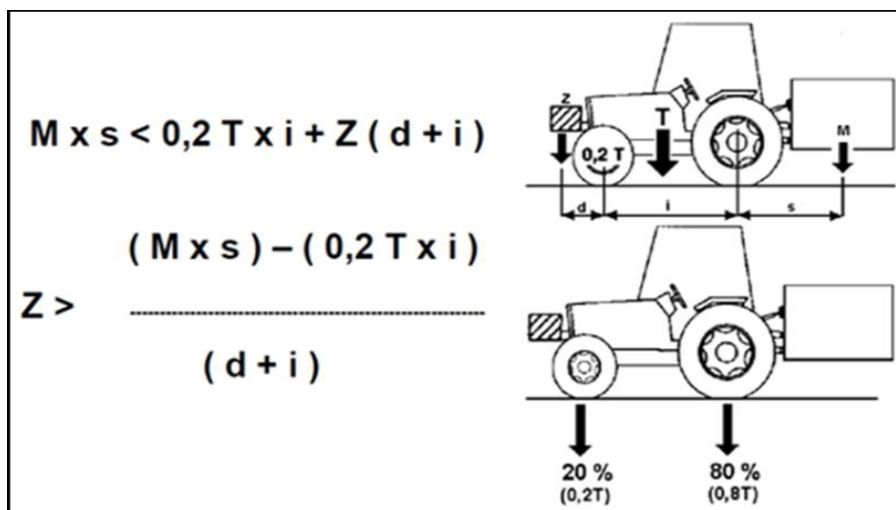


Note: Use the proper HP of tractor for the particular model of machine. See the section technical specification

- Always refer to YOUR tractor operator's manual for specific detailed information regarding operation of YOUR equipment.
- Following tractor related information uses tractors to illustrate preparation, attachment and operational procedures.
- Use your tractor Operator Manual for detailed information, as procedures will vary by equipment.

### 6.2 TRACTOR STABILITY AND LIFTING CAPACITY CHECK

- The front counterweight may not be able to maintain tractor stability if the tractor is driven at excessive speed on rough ground with the implement raise. Drive slowly and carefully in these conditions.
- As far as road circulation is concerned, hitching equipment to the tractor to have a single unit, can alter stability and make it difficult to drive and work
- When you add a machine to the tractor, you will change the weight distribution over the axles. It is therefore recommended to add suitable ballast to the front of the tractor in order to properly distribute the weight over the axles.



Calculate the ballast to be used with the following formula:

where:

$I$  = tractor wheel inter-axis (m)

$d$  = distance between the front axle and the front ballast (m)

$s$  = projection of the piece of equipment from the rear axle (m)

$T$  = tractor mass (kg)

$Z$  = ballast mass (Kg)

$M$  = equipment mass (Kg)

At least 20% of the total tractor-equipment mass should rest on the front bridge of the tractor. It should be remembered, however, that stability can be improved with the right choice of tractor equipment coupling and with the application of ballast at the front, in the limits and methods indicated by the tractor manufacturer. Moreover.

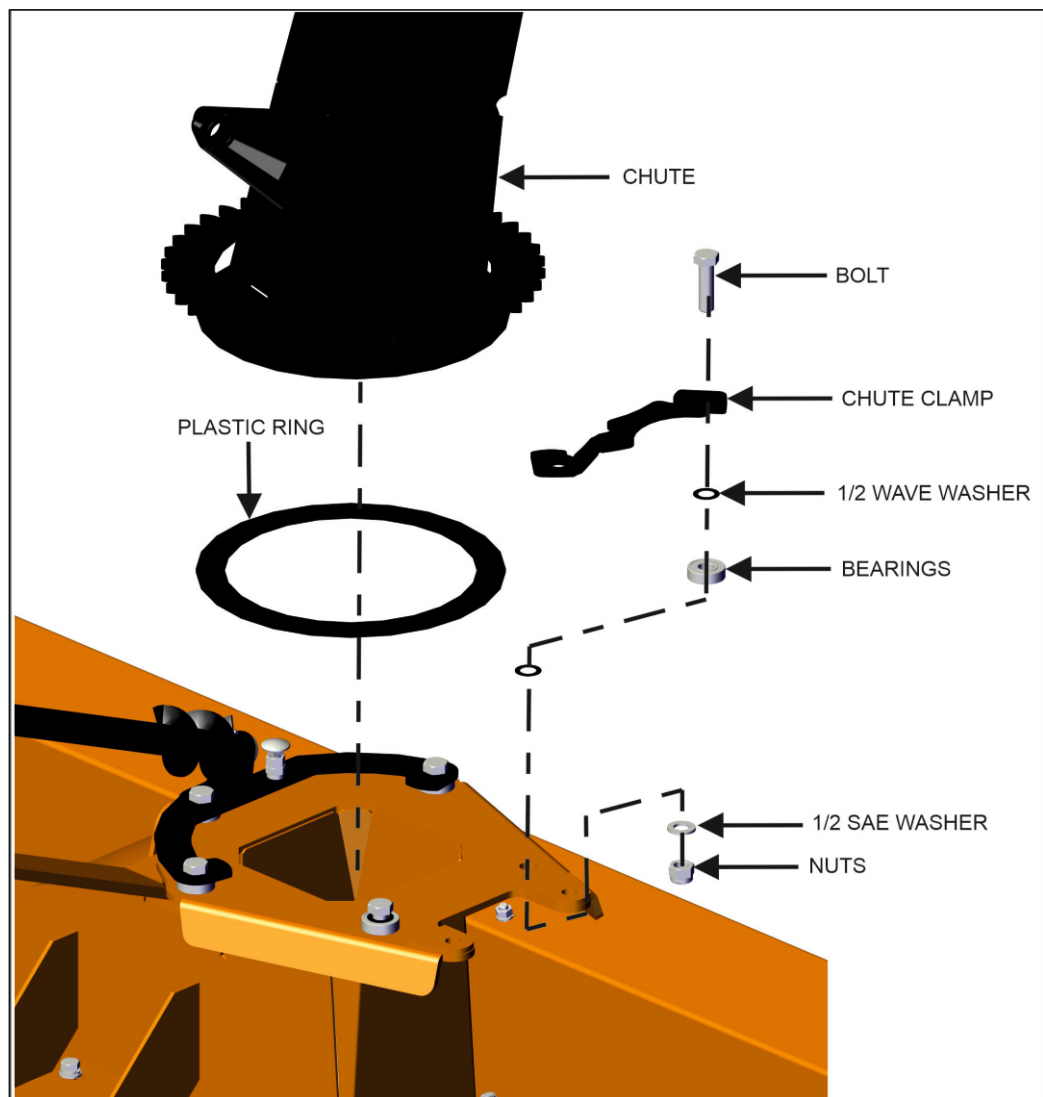
## 7. PREPARING THE IMPLEMENT

### 7.1 INSTALLING THE HAND CRANK

- Carefully remove the chute and PTO shaft from the area of the auger and set them aside.
- Locate the bag or package of small components.
- Remove the ties that hold the Plastic ring on the blower and place the base of the chute on top of the plastic ring,

(Note: Plastic Ring can be lightly coated with grease at this time.)

- Take two 1/2 bolts and drop them down through the chute clamp holes, turn the clamp upside down while holding the bolts in the holes.
- Place a 1/2 wave washer on each bolt, then a 1/2 bearing and finish with a 1/2" SAE washer.
- Turn the clamp right side up with the washers and the bearings on the bolts.
- Carefully insert the bolts into the mounting holes and secure with lock washer and nuts.
- Install the PTO with the shear bolt yoke at the gearbox. This will provide more space to change the shear bolt



## 7.2 ATTACHING UP THE BLOWER FOR THE FIRST TIME

This Blower is ideal for tractors below 50 HP, Cat -1&2, 3 Point Hitch.

Set the blower on a level surface and back the tractor up to it. Place the lower 3PH arms of the tractor between the lower hitch plates on the blower and insert the hitch pins that came with the blower, secure these with the Linch Pins. Next swing the top link into place and adjust the length so the top link pin can be inserted. You will have to supply the top link pin. With the top link set at this length the blower will be flat or parallel to the ground.

Do not fasten the PTO shaft to the tractor.

- Slowly lift the blower until the gearbox shaft is at the same height as the PTO output on the tractor.
- Push (or collapse the telescopic part of the PTO completely). If you cannot collapse it far enough to get it on the tractor then it has to be shortened.
- Measure the amount that the shaft is too long. Remove it from the blower and pull it apart.
- Take a hacksaw and cut  $\frac{1}{2}$  of the measurement from each end, cut both the plastic tube and the metal core.
- Use a file to remove the burrs from the cut parts, wipe any filings from the surfaces and slide the shaft together to be sure that it slides freely.
- Make sure the plastic shield is free to rotate on the shaft before installing on the machine.
- Reinstall the PTO on the blower and fasten it to the tractor pushing the spring-loaded pin in and sliding the yoke onto the tractor spline until the pin snaps into place.
- Next lift the 3PH arms to the highest point, determine the overlap on the PTO shaft. It should be at least 2" if it is too short then the PTO will jam rather than collapse. This will put severe strain on the shaft and gearbox.
- It may come apart and this will allow a spinning PTO to become an uncontrolled weapon and could **severely injure or kill** someone!
- After it has been determined that the PTO is OK and will not jam or come apart, make sure any bystanders are well away from the machine.
- Lower the blower to ground level, engage the PTO and slowly start the blower. Make sure that everything is turning freely.
- Slowly increase the speed until you have reached 540 RPM on the PTO. This is the speed that this blower was designed for. If it turns faster the fan could be going dangerously fast. If it turns slower it will not perform very well as the snow will not get blown very far.

**Snowblower performance will vary greatly due to ambient temperature and type of snow.**

## 7.3 OPERATING THE SNOW BLOWER

This blower is on the back of the tractor facing toward the rear. While blowing snow the tractor has to be backed into the snow.

### WARNING

Stay in the seat of the tractor all the time that the blower is running.

### WARNING

Make sure the area is clear of people while blowing snow.

### WARNING

Do not direct discharged snow toward people, cars or buildings as stones or bits of ice can go a long distance.

When you get to the place that you want clear of snow, lower the blower to the ground and turn the chute to discharge the snow in the direction you want the snow to go. Engage the PTO and slowly bring the blower up to operating speed. After the blower is running use reverse gear and start backing up. The chute can be rotated from the tractor seat while blowing snow.

If your drive is paved then you may need to lengthen the top 3PH link to tilt the blower ahead so it will scrape the hard surface better.

If your drive is gravel then you may want to shorten the top 3PH link to tilt the blower back so it will not dig into the loose gravel. In colder climates where the bare ground is frozen during most of the winter the blower can be adjusted to scrape the snow off the frozen drive after freeze-up.

In areas where the gravel is not frozen most of the time we have optional skid shoes available to raise the blower a few inches above the gravel.

### WARNING

This blower is designed to blow snow, but will blow loose gravel if care is not taken.

### WARNING

After the job is finished: Disengage the PTO to stop the blower before driving away or getting off the tractor.

The auger is protected with a safety shear bolt that will shear if the auger becomes jammed. The fan is also protected with a shear bolt in the PTO shaft universal joint if the fan becomes jammed.

### WARNING

**When replacing the shear bolts STOP the engine before attempting to replace them!**

There is a hydraulic hood turner available that couples into the tractor hydraulic remotes if your tractor is so equipped. This will allow you to rotate the hood without reaching back to the blower especially if you have a cab on your tractor.



## 7.4 INSTALLING THE HAND CRANK

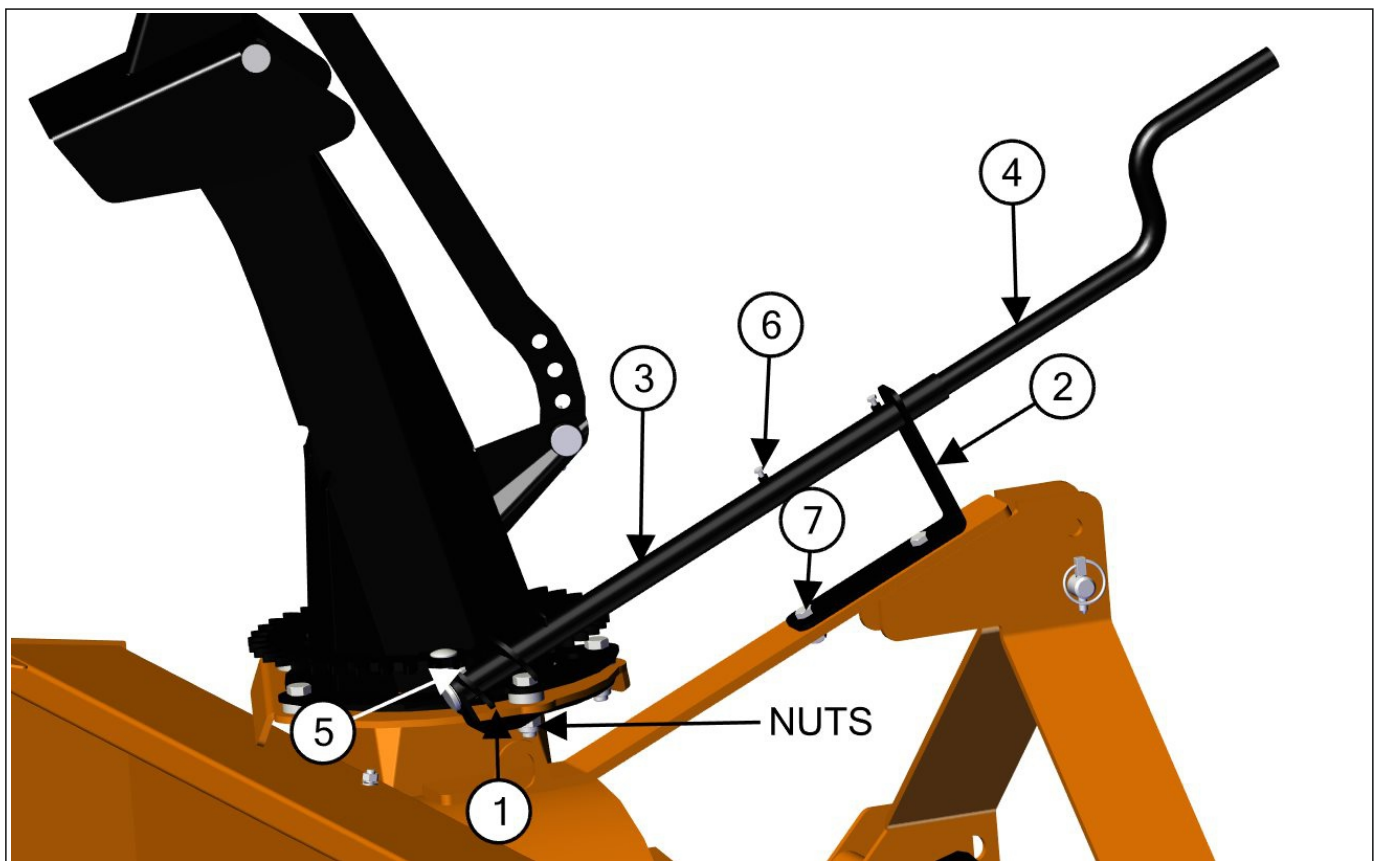
The crank package consists of,

1. Tail bracket
2. Upper bracket
3. Worm Gear
4. Crank
5. Spring Pin
6. Set Screws
7. Bolt

- Bolts First remove the 2 nuts (as shown), and insert The crank tail bracket [1] and reinstall the nuts and lock washer.
- Insert the bottom end of the worm gear [3] into the tail bracket, next slide the top bracket [2] into place and secure with bolts [7]. Install spring pin [5].
- Slide crank [4] into tube as shown and secure with the set-screws [6], you should be able to reach it from the tractor seat.

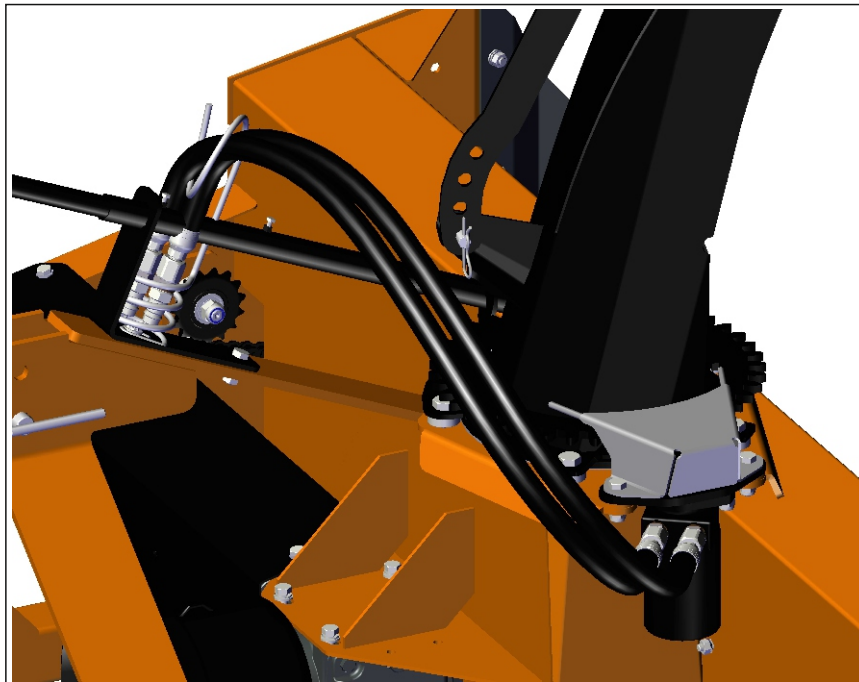
### WARNING

**Please note!! when the blower is raised, the crank will be closer to the tractor and could damage the cab or cause injury to the operator!**



## 7.5 MOTOR HYDRAULIC ROTATOR INSTALLATION

- The Hydraulic Chute Rotator uses a hydraulic motor, controlled by the tractor hydraulics to rotate the chute. The kit includes a safety shield, 2 pc bolts, hydraulic fittings, hoses and tractor couplings.
- When installing the hydraulic elbows, turn them in "no more than 4 rounds" then tighten the jam-nut to secure the elbow in the direction that you want the hoses to go as shown.
- The relief valves are factory preset at 900 PSI.
- Route the hoses and tie them to the top "A" frame support, away from moving parts, Ensure that the hoses do not get too tight or rub on the frame when the blower is raised or lowered.

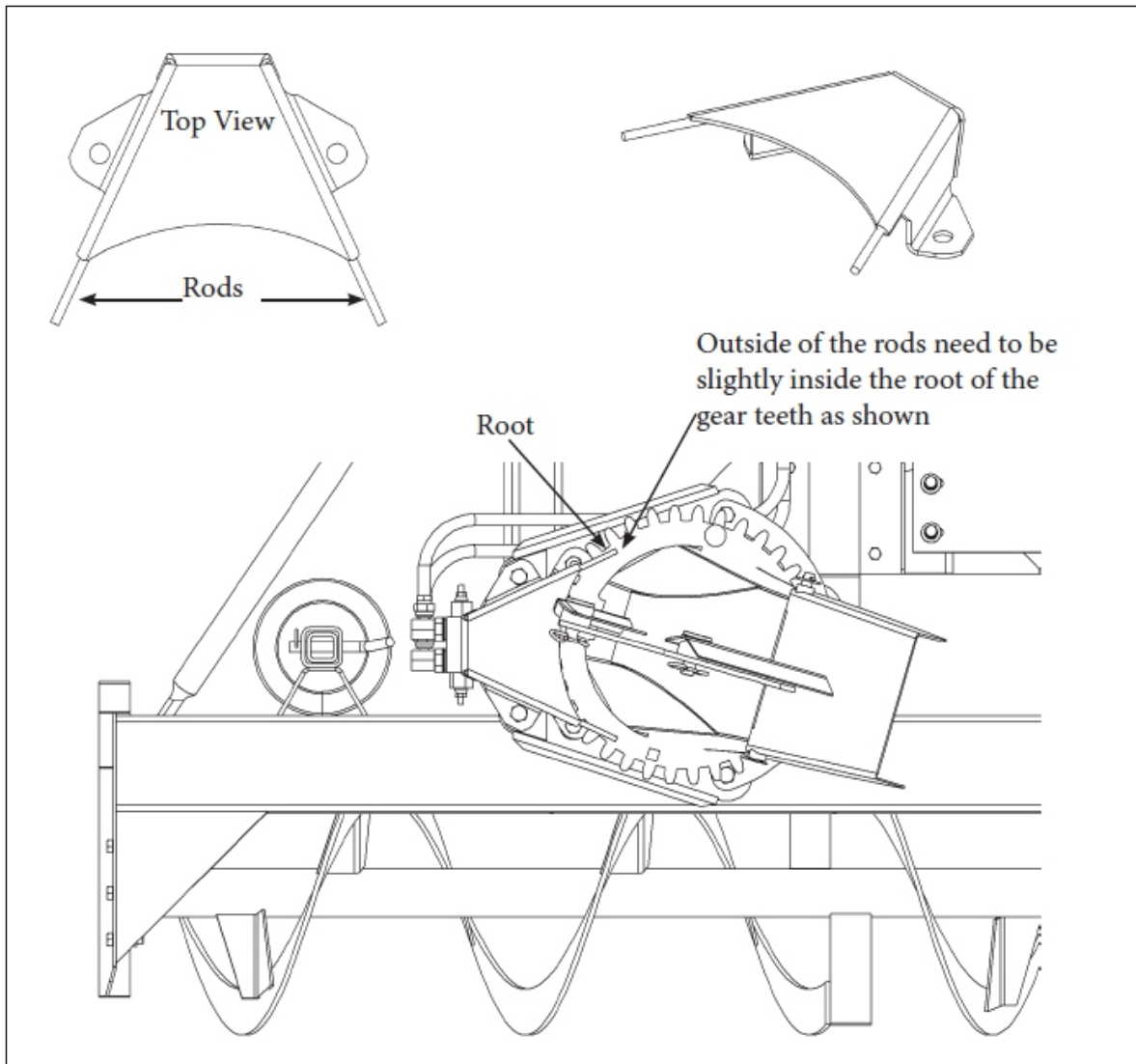


- First set the motor with the bracket on top of the Chute Plate and then place the shield on top of the motor bracket and secure with bolts.
- Please ensure that the gear does not jam or bind during the rotation of the chute. The bolt holes are slightly oversize, allowing you to adjust the clearance somewhat. You should be able to move the chute back and forth slightly.



## 7.6 INSTALLING HYDRAULIC CHUTE ROTATOR SAFETY SHIELD WITH HOSE GUIDE

- First set the motor with the bracket on top of the Chute Plate and then place the shield on top of the motor bracket and secure with bolts.
- Please ensure that the gear does not jam or bind during the rotation of the chute.
- The bolt holes are slightly oversize, allowing you to adjust the clearance somewhat.
- You should be able to move the chute back and forth slightly.



- To bend the rod, you can use a short piece of 3/8 pipe for a lever, or an adjustable wrench to bend the rod.
- Do not use a hammer as it has less control of the bend.
- Keep the height of the rod the same, only bend it in or out.
- After installation carefully rotate the chute to ensure that there is no interference or binding.

## 8. ATTACHING AND DETACHING THE IMPLEMENT

### 8.1 USE YOUR TRACTOR OPERATOR'S MANUAL

- Always refer to your tractor operator's manual for specific detailed information regarding operation of your equipment.
- Following tractor related information used to illustrate preparation, attachment and operational procedures.
- Use your tractor Operator's Manual for detailed information, as procedures will vary by equipment.

### 8.2 ATTACHING AND DETACHING TO THE TRACTOR

SNOW BLOWER can be attached to the suitable category tractor.  
Follow below procedure for attaching the SNOW BLOWER to the tractor:

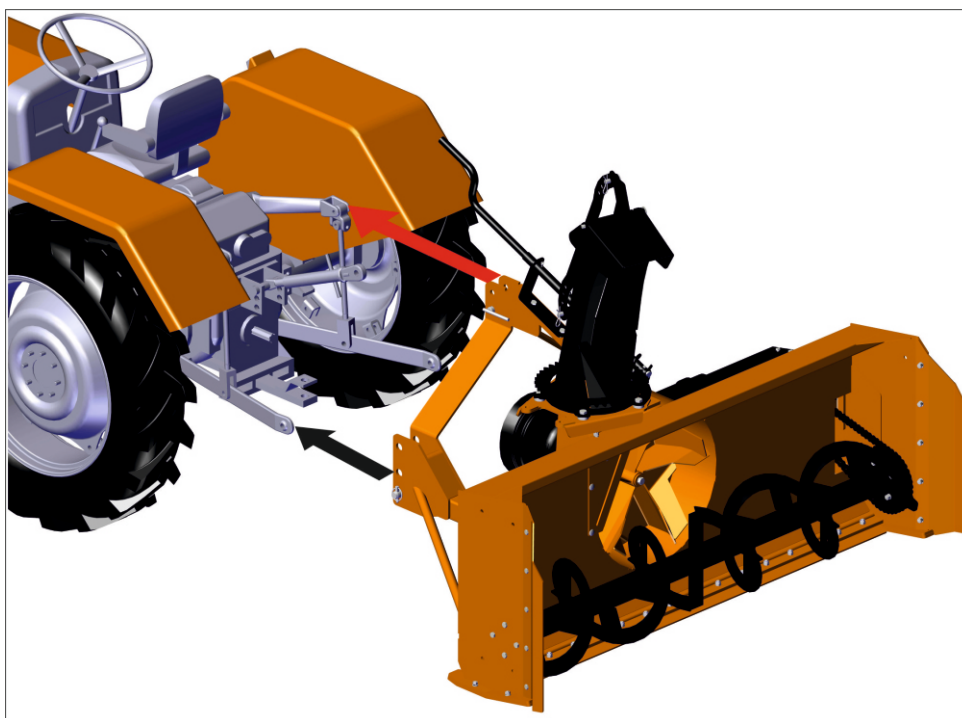
#### **WARNING**

Trained person is required to attach and detach from the tractor. Else may cause major injury to operator and Savier damage to equipment and tractor.

Snow Blower should always be parked on level ground for attaching and detaching to tractor safely and easily.

#### **CAUTION**

Before attaching equipment to the tractor, check for any accessories fitted on tractor like drawbar, swinging drawbar, automatic hitch etc. for any hindrance, restriction, proper functioning and free up and movement of equipment. If required remove accessories before attaching equipment.  
When using tractors with multi-speed PTO, be certain that PTO is set for prescribed RPM.



1. Bring the tractor back and insert LH lower link (1) of the tractor to the corresponding hitch pin of the equipment and lock it with the help of linch pin.
2. Similarly attach RH lower link (2) of the tractor to the corresponding hitch pin of the equipment. If required adjust height of lower link with the help of adjustable lift rod.
3. Attach top link (3) of tractor to top hitch point of the equipment. Adjust length of top link if required to reach and align to the required hole on the top hitch point.

## 8.3 UNIVERSAL PROPELLER SHAFT ATTACHMENT

### WARNING

Length of propeller shaft is very important and requirement may vary from tractor to tractor. Please read section Universal propeller shaft length adjustment.

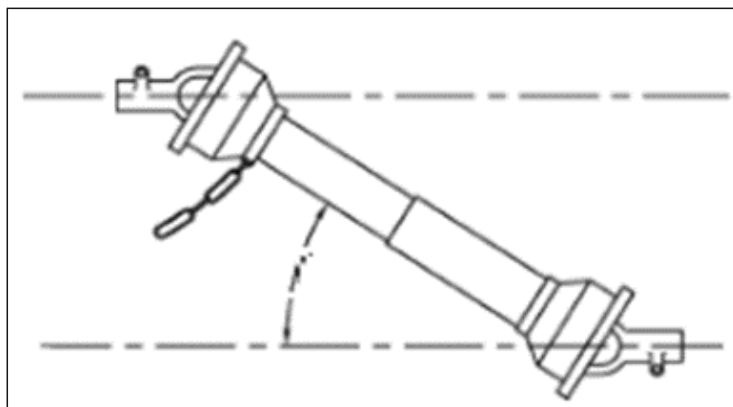


During propeller shaft installation, push the pushpin (1) then slide one end of propeller shaft over the tractor's splined PTO shaft and secure with locking device (push pin) 1 of drive shaft. Do the same process for the other end of the Propeller shaft.

Propeller shaft now be moved back and forth to ensure that it is secure on the PTO shaft of the tractor and implement gearbox.



Note: The tilt of the universal propeller shaft must not exceed 35° during transport position and 15° during working position.



## 8.4 DETACHING SNOW BLOWER FROM THE TRACTOR

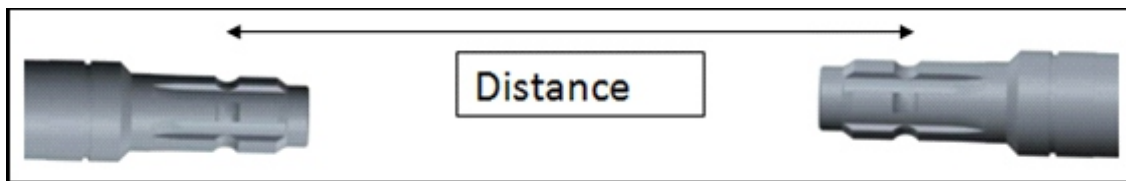
- Detaching the equipment from tractor is reverse procedure of attaching the equipment.
- First lift down the equipment on the level ground and lower the stand and lock the stand so that equipment should not erect after detaching from tractor.

- Remove propeller shaft, followed by top link, then LH lower link and RH lower link of tractor.

## 8.5 UNIVERSAL PROPELLER SHAFT LENGTH ADJUSTMENT

### IMPORTANT:

- The propeller shaft which will be used to operate the machine must definitely have protective covers.
- Propeller shaft without protective covers should never be used.
- The tractor may not be running during the mounting and dismounting of the shaft.
- No other persons should be around the propeller shaft during processes with the shaft.

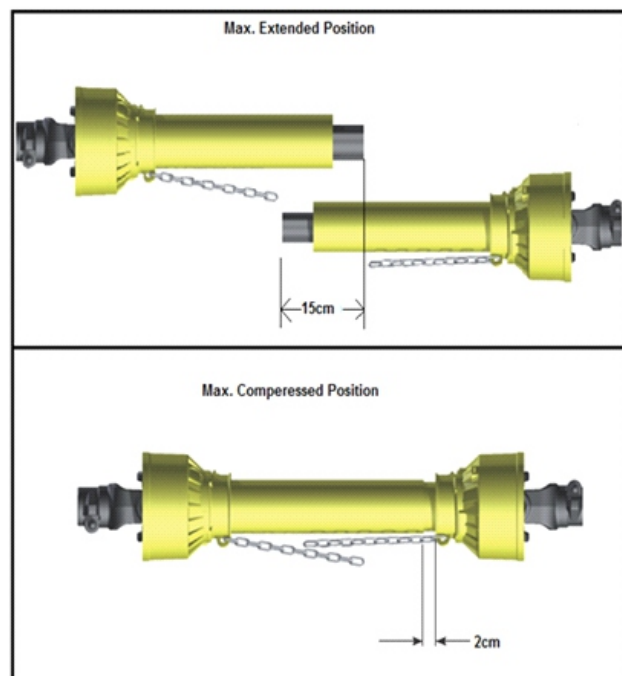


**Attention:** The universal propeller shaft supplied, with the machine, is of standard length. Therefore, it might be necessary to adapt the universal drive shaft.

Make sure the PTO shaft length is compatible with the different working positions of the implement. If the PTO shaft is too long it might bend and damage may occur to the tractor or implement.

Place the tractor and the implement on a flat surface

Attach the 3-point linkage of the tractor (see the section attaching and detaching the implement)



Find the length between the groove of PTO output on the tractor, and the PTO input on the implement when the implement and tractor is in horizontal position.

Raise the implement fully and measure from end-to-end between the two grooves. It is used to determine the shortest distance.

Lower the lift to about half and re-measure the distance, then drop the lift to the bottom and re-measure again.

Let the shortest distance be A and the longest distance be B.

- Put the both halves of the propeller shaft on a flat surface parallel to each other in such a way that the distance between the two push pin of the yoke should be equal to the shortest distance A.
- Measure the minimum clearance, this distance should be minimum 2 cm (Fig.), if this distance is more than 2 cm then no need to cut the shaft. If the clearance is less than 2 cm, then cut the pipe of propeller shaft along with cover both side such that the minimum clearance of 4 cm is maintained.
- Again, put both halves of the propeller shaft on a flat surface parallel to each other (Fig.) in such a way that the distance between the push pin of the yoke should be equal to the maximum distance B. If the minimum overlap is 15 cm, then no need to resize the propeller shaft and it is ready to be fit the tractor with the implement.

## **DANGER**

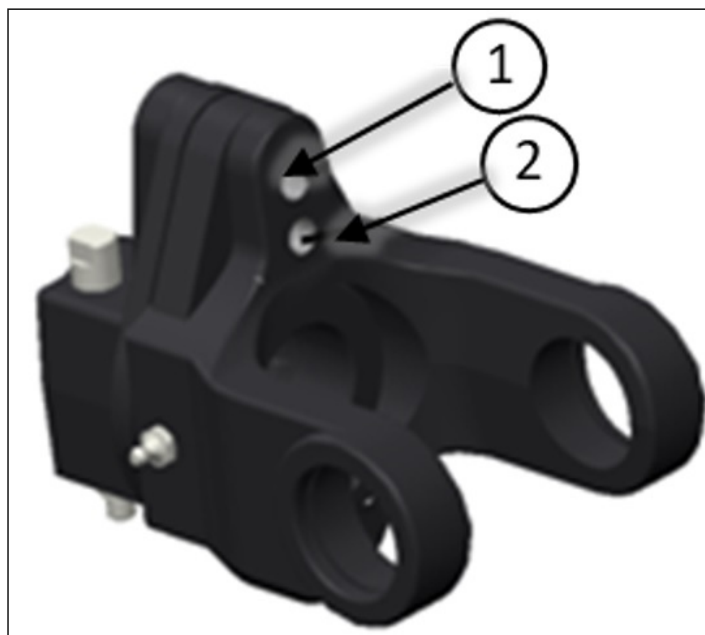
Failure to make these adjustments will damage the unit and causes personal injury.



**Note:** Clean the filings from the metal and dress the edges of the cuts with a file when done.

### 8.6 PROPELLER SHAFT WITH SAFETY LIMITER

- The shear bolt torque limiter, inserted in the joint is equipped with a safety bolt that is set for an average force.
- Whenever unduly resistant obstacles cause the bolt to shear, it must be replaced by a new bolt of the same size and material.
- If the bolt inserted in hole (1) shears repeatedly, then we recommend inserting in hole (2).



## 9. TRANSPORTING

### 9.1 TRANSPORT SAFELY



When transporting on a public road or highway, use accessory lights and devices to provide adequate warning to operators of other vehicles.

Contact with electrical cables can cause severe injury or death. When transporting or operating the machine, make sure to avoid contact with electrical lines.

When transporting the implement, always travel at a speed that allows adequate control of steering and stopping.



When transporting the implement on a smooth surface road, do not operate the tractor at more than 20 km/h (12 mph). Reduce speed considerably when traveling over uneven ground. Make sure that there is no one near the implement.

In the transport position, be sure to determine the amount of implement travel behind the tractor when turning corners. Be aware of width and height limits to avoid collisions with bridges and other vehicles.



## 10. OPERATING THE IMPLEMENT

### 10.1 USAGE

The FARMMAXX SNOW BLOWER is specially designed for snow fields.

### 10.2 FIELD OPERATION

- Before beginning to till the following operation should be performed:
- Check that all plugs have been replaced properly in the gearbox.
- Be sure all Blower fan and spiral rotor, bolts and nuts are tight.
- Be certain all guards and shields are in place and secure.
- Apply grease to propeller shaft and all other grease fittings.
- Clear the area to be Blow, branches and other foreign objects.
- Operate with prescribed RPM PTO tractor.

### 10.3 PARKING

The following steps should be done when preparing to store the blower or unhitch it from the tractor.

- Park the SNOW BLOWER on level and fined ground.
- Shut off tractor engine and engage parking brake.
- Set parking stand to desired height to maintain Blower in proper height for re-hook up and install pin to lock in place.
- Unhitch from tractor.
- Remove propeller shaft.

### 10.4 PRE OPERATION CHECKS

Efficient and safe operation of the SNOW BLOWER requires that each operator reads and understands the operating procedures and all related safety precautions outlined in this section. A pre-operation checklist is provided for the operator. It is important for both personal safety and maintaining the good mechanical condition of the SNOW BLOWER that this checklist is followed.

Before operating the machine and each time thereafter, the following areas should be checked of:

- Lubricate the machine as per the schedule outlined in the Service Maintenance Section.
- Use only a tractor of adequate power and weight to pull the machine.
- Check that the machine is properly attached to the tractor. Be sure retainers are used on the mounting pins.
- Check that the Propeller shaft shield turns freely and that the propeller shaft telescope easily. Clean and lubricate if required.
- Check the rotor. Be sure they are not damaged or broken and are tightly bolted to the blower. Repair or replace as required. Broken and Crack spiral rotor are very dangerous.
- Remove any entangled material on rotating parts.
- Set the leveling jack adjustment before using the machine for finishing of field.
- Be sure that the parking stand should be set at desire height of the working condition.
- After attachment with tractor Parking stand should be proper lock with locking pin with the blower.

## 10.5 STARTING OPERATION

- Attach the SNOW BLOWER to the tractor as per the procedure given. See section "Attaching and Detaching SNOW BLOWER".
- Rest the SNOW BLOWER on ground and engage tractor PTO.
- Do not engage PTO at full throttle.
- Adjust throttle to get 540/1000 PTO RPM.
- Move the tractor forward to get optimum output at 2.5 to 3.0 kmph.
- SNOW BLOWER should be operated with blower properly leveled in snow mowing.
- Be sure that the parking stand should be set at desire height of the working condition.
- After attachment with tractor Parking stand should be proper lock with locking pin with the blower.



## 11. LUBRICATION AND MAINTENANCE

### 11.1 SAFE LUBRICATION AND MAINTENANCE OF THE MACHINE



To avoid serious injuries or death from unexpected machine movement, locate the machine on a level surface before performing any maintenance work. Lower the machine to the ground or support the raised machine with adequate blocks before performing any maintenance work. If the machine is connected to the tractor, apply the parking brake and/or place the transmission in PARK, shut off the engine and remove the key.

### 11.2 LUBRICATION AND MAINTENANCE PROCEDURES



Do not clean, lubricate or adjust the machine while it is moving.

**IMPORTANT:** The recommended maintenance intervals are based on normal operating conditions; in severe or unusual conditions it may be necessary to lubricate more frequently. Perform the lubrication and maintenance procedures indicated in this section at the start and end of each season.

Clean the grease fittings before using a grease gun. Replace any missing or damaged grease fittings immediately. If the new grease fitting does not accept grease, remove it and inspect the adjacent parts for failures. Proper lubrication of the SNOW BLOWER at each point (A) at the 08-hour intervals pointed out in this manual, using the grease and/or oil recommended, will prolong the service life of your machine. Failure to perform the above may result in failures as well as loss of time and money.



Before oiling, maintaining or adjusting the SNOW BLOWER, switch off the tractor engine.

#### Daily or Every 8 Hours Work

1. Grease all other parts indicated in this manual book.
2. Tighten all other bolts.

#### Weekly or Every 50 Hours Work

1. Check the level of the oil in the gearbox, with the machine positioned horizontally.
2. Check chain tension.
3. Check and tighten all nuts and bolts.
4. Lubricate all bearings with grease.

#### Every 200 Hours Work

1. Change oil in the gearbox, and refill with HP 85W140 (API GL4) gear oil.  
(Fill oil upto oil level)

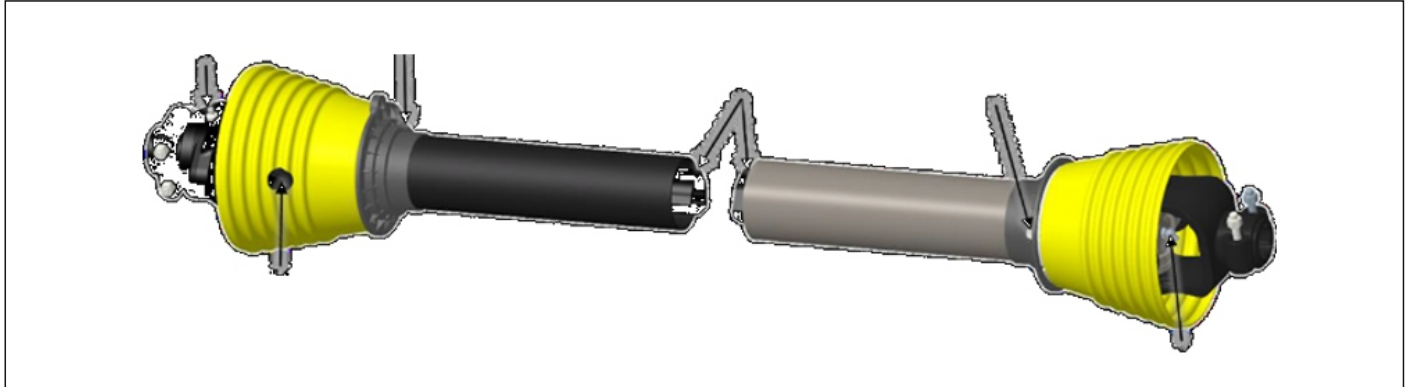
#### Every 400 Hours Work

1. Change the lubrication grease.
2. Check suspension spring tension. If not found in right condition, change it.

## 11.3 DRIVE-SHAFT MAINTENANCE

Lubricant: SAE multi-purpose lithium-type grease

Grease crosses, sliding parts of protective shielding and driveshaft transmission tubes.



### IMPORTANT

For details about maintenance and lubrication of the driveshaft, refer to the user manual of the driveshaft manufacturer.

#### Driveshaft clutch:

Exposition to the elements of blower and driveshaft, or a long period of inactivity, generally results in oxidation of some clutch components, and creates "sticking" effect on the clutch.

Consequently, the torque required to the slippage of the clutch increases considerable respect to the value set at factory, and this may be cause of driveshaft breakage during operation, or damage to the tractor or implement.

To avoid it, before re-using the blower, operator must perform a short "run-in" of the clutch, as follows:

- Take note of the height of the compressed springs;
- Loosen the bolts that compress the springs;
- Connect the blower to the tractor (see section Connecting to the tractor);
- Connect the driveshaft (see section Driveline installation);
- Start the tractor and engage PTO for few seconds, in order to cause slippage and separation of the parts "sticked" of the clutch;
- Turn off the tractor, remove key and wait for all components are stopped before dismounting from tractor;
- Retighten the bolts restoring the original spring's position on the driveshaft.

### NOTE

For replacement of the driveshaft service parts (e.g. friction discs), refer to the user manual of the driveshaft manufacturer.

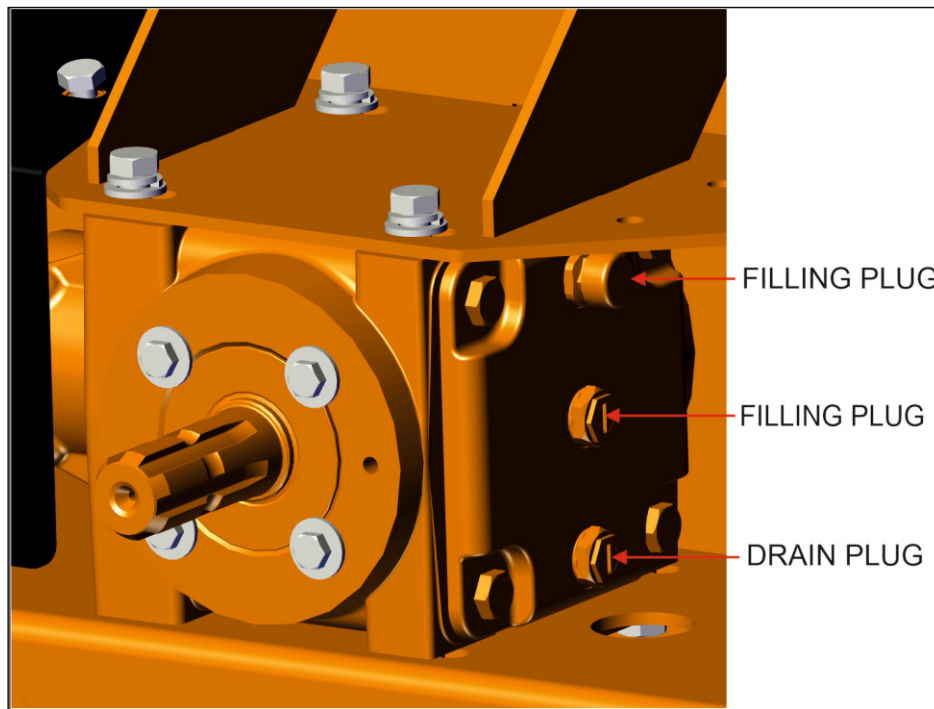
## 11.4 GEARBOX LUBRICATION (APPLICABLE FOR 78 INCH)

- Check the oil level every 50 hours, making sure the oil mark left on the dipstick of the filling plug (middle of gearbox) is located between the two reference marks (minimum and maximum).
- Use **SAE 90** gear oil. **SAE 80W90** gear oil may also be used.

If the sign is below the minimum, fill up oil till restore the correct level.

The oil change must be performed:

- After the first 50 working hours;
- Each 200 working hours,



## To make the oil change:

- place a tank under the oil drain plug (bottom of gearbox);
- unscrew the oil drain plug and drain oil completely into the tank;
- retighten the drain plug;
- unscrew the oil filling plug;
- retighten the filling plug;
- Dispose the discharged oil into containers for used oil.



Frequently check possible oil leaks from blower through visual inspection, and in case of leakage provide immediately proper maintenance.

Avoid oil leaks on the ground when restoring oil level or making oil change.

## IMPORTANT

Frequently check possible oil leaks from blower through visual inspection, and in case of leakage provide immediately proper maintenance.

Avoid oil leaks on the ground when restoring oil level or making oil change.

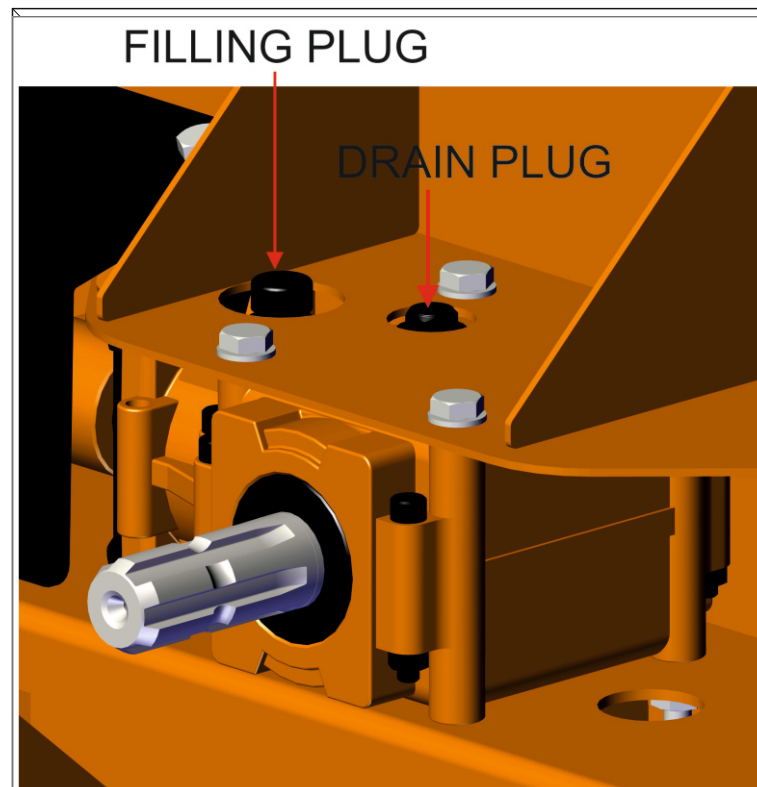
### 11.4.1 GEARBOX LUBRICATION (APPLICABLE FOR 54 & 68 INCH)

- Check the oil level every 50 hours, making sure the oil mark left on the dipstick of the filling plug (middle of gearbox) is located between the two reference marks (minimum and maximum).
- Use **SAE 90** gear oil. **SAE 80W90** gear oil may also be used.

If the sign is below the minimum, fill up oil till restore the correct level.

The oil change must be performed:

- After the first 50 working hours;
- Each 200 working hours,



## To make the oil change:

- place a tank under the oil drain plug (bottom of gearbox);
- unscrew the oil drain plug and drain oil completely into the tank;
- retighten the drain plug;
- unscrew the oil filling plug;
- retighten the filling plug;
- Dispose the discharged oil into containers for used oil.



Frequently check possible oil leaks from blower through visual inspection, and in case of leakage provide immediately proper maintenance.

Avoid oil leaks on the ground when restoring oil level or making oil change.

## IMPORTANT

Frequently check possible oil leaks from blower through visual inspection, and in case of leakage provide immediately proper maintenance.

Avoid Oil leaks on the ground when restoring oil level or making oil change.

## 11.5 LUBRICATION

- Auger and Shear Sprocket Bearing – grease sparingly every **50** hours. (By using too much grease you will push the seals off the bearing).
- PTO Shaft – grease every **10** hours. Pull apart and apply grease to the sliding members. Grease the yoke bearings at this time as well.
- Discharge chute mount – occasionally squirt oil on the plastic ring (this may extend the life of the plastic ring and will operate smoother).
- Auger Chain – apply oil on a regular basis especially after using the snowblower.

## 11.6 PRACTICE SAFE MAINTENANCE

- Understand service procedure before doing work. Keep area clean and dry.
- Never lubricate, service, or adjust machine while it is moving.
- Keep hands, feet, and clothing from power-driven parts.
- Disengage all power.
- Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool. Securely support any machine elements that must be raised for service work.
- Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

## 11.7 METRIC BOLT AND SCREW TORQUE VALUES

	8.8 GRADE	10.9 GRADE	12.9 GRADE
BOLT SIZE (METRIC)	Nm	Nm	Nm
M6	11	15	15
M8	26	36	40
M10	52	72	81
M12	91	125	143
M14	145	200	218
M16	225	315	357
M18	310	405	478
M20	440	610	701



### Note

Torque values listed are for general use only, based on the strength of the bolt or screw. Do not use these values if a different torque value or tightening procedure is given for a specific application.

## 11.8 MAINTENANCE OF SNOW BLOWER



For safety reasons, each maintenance operation must be performed with the tractor's PTO disengaged; the Snow Blower lowered completely to the ground or on safely supported blocking, tractor engine shut off and ignition key removed.

Proper servicing and adjustment is the key to the long life of any farm implement. With careful and systematic inspection, you can avoid the costly maintenance, time and repair.

After using your blower for several hours, ensure all the bolts are tight.

Replace any worn, damaged or illegible safety labels by obtaining new labels from your dealer.

- PTO Shearbolt –M 8x50 -8.8
- Auger Shearbolt – $\frac{1}{4}$  x 1" Gr #2
- Auger Drive Chain Tightener –tighten chain allowing  $\frac{1}{4}$ " sag in the bottom span of chain (between drive and driven sprocket).

Periodically check the tightness of screws and nuts, and tighten if necessary.

## 11.9 REPLACEMENT OF SPIRAL ROTOR

In order for the blower to work properly, and to always obtain a precision with lower HP requirements thus keeping cost down, proper rotor maintenance is important.

- Check the condition of the spiral rotor.
- A spiral rotor must be replaced if, due to wear or damage, its original shape has been distorted.

### WARNING

To avoid possible injury, always wear proper eye and hand protection when servicing spiral rotor.

## 11.10 STORAGE

At the end of the working season or when the SNOW BLOWER will not be used for a long period, it is good practice to clean off any dirt or grease that may have accumulated on any of the moving parts. Check the blades for wear and replace.

Always place machine in safe area.

Make sure that the parking area should not be crowded and away from any hazardous activities.

If necessary, inspect the SNOW BLOWER for loose, damaged or worn parts and adjust or replace if needed.

- Repaint parts where paint is worn or scratched to prevent rust.
- Drain oil in gearbox by removing the bottom drain plug.
- Drain oil in drive by removing the bottom plug.
- Be sure to refill gearbox at this time.
- Lastly cover SNOW BLOWER with a plastic sheet and store in a clean, dry place.

At the end of the season lubricate the Bearings, PTO shaft, Discharge chute mount and Auger chain before storing it.

## 11.11 SCRAPPING

In case of scrapping, the machine must be disposed in appropriate and authorized sites, according to local legislation.

Before scrapping, separate plastic parts from rubber parts, aluminum, steel, etc.

Recover and dispose any exhausted oils to authorized centers for oil collecting.

## 12 – TROUBLESHOOTING

### SNOW BLOWER

Symptom	Cause	Solution
<b>Gear box over heating</b>	Low Lubricant	Fill to proper level.
	improper lubricant	Replace with proper lubricant
<b>Gear box noisy</b>	New and worn out gear	Run in or change gear
	Worn Bearings	Replace bearings.
	Low oil in gear box	Check level and add oil
<b>Gear box leakage</b>	Damaged oil seal	Replace seal
	Bent Shaft	Replace shaft
	Oil level too high	Drain oil to proper level.
	Gasket Damaged	Replace gasket.
<b>PTO vibrates</b>	Worn universal joint	Replace universal joint.
	Snow Blower lift too high	Snow Blower blower
	Bent PTO driveline	Replace PTO driveline
<b>Rotor not rotating</b>	PTO not engaged	Engage PTO.
	Broken drive chain	Repair drive chain.
	Driveline shear bolt sheared	Use of genuine Shear bolt in case Damage.
<b>Rear wheels slipping</b>	Tractor not taking load	Reduce the working width by reducing the number of number of blades from one side.



# FARM-MAXX

## ***Manufactured by:***

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