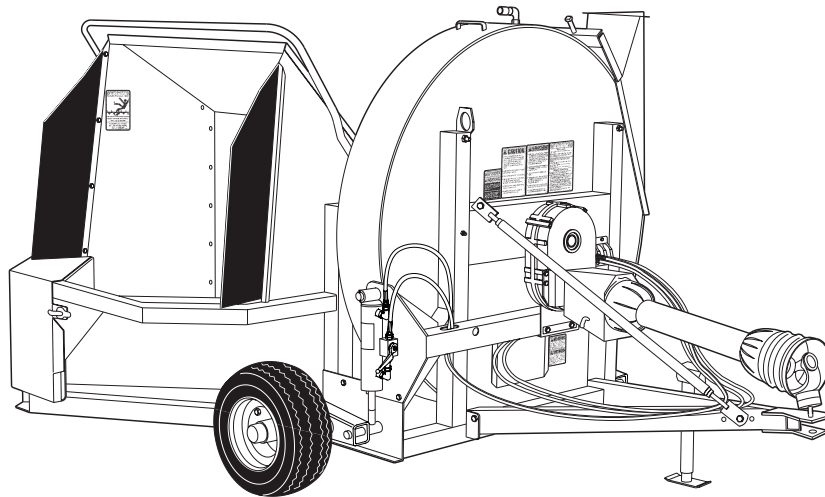
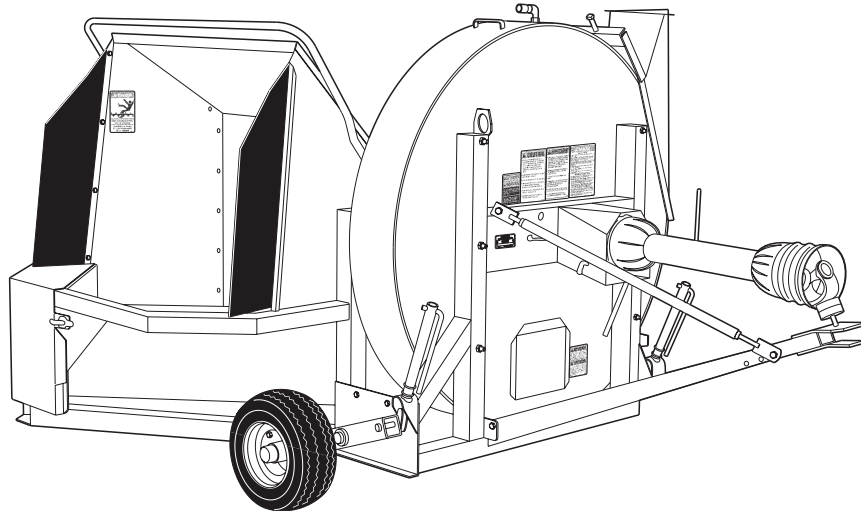




**S-55**



# Forage Blower Operator's manual



## DION-AG INC. LIMITED WARRANTY TERMS AND CONDITIONS

**Covered by Warranty** – Under the warranty, Dion-Ag guarantees its new machinery and/or equipment to be free of defects, both in workmanship and material, for a period of one (1) year from the time of delivery by the dealer. Dion-Ag Inc. will repair or replace, at its discretion and without charge for service parts or labour, any defective part of the equipment on condition that the machinery and/or equipment has been operated in accordance with the instructions contained in the Dion-Ag Inc. Operator's Manual.

**Not covered by Warranty** – This warranty does not cover: (1) service parts and labour needed to maintain the unit; and (2) the replacement of parts due to normal wear and tear. The owner is responsible for these items. Some examples of maintenance and normal wear parts are: oil, lubricants & other fluids, belts, knives, clutch and clutch discs, roller chain, paddles, etc. Dion-Ag Inc. is not responsible for depreciation or damage caused by normal wear, lack of reasonable and proper maintenance, failure to follow operating instructions, misuse, lack of proper protection during storage, vandalism, the elements, collision or accident.

**Securing Warranty Service** – To secure warranty service, the purchaser must report the machinery and/or equipment defect to an authorized dealer and request warranty service within the applicable warranty terms.

**Owner's Obligation** – It is the responsibility of the Owner to transport the equipment to the service shop of an authorized Dion-Ag Dealer or to reimburse the dealer for any travel or transportation expense involved in fulfilling this warranty. This warranty does NOT cover rental of replacement equipment during the repair period, loss of profits, or other commercial loss, and any or all incidental or consequential damages, overtime labour charges and/or freight charges for replacement parts.

**Limitations of This Warranty** – No agent, employee or representative of Dion-Ag Inc. has the authority to amend, or modify, in any manner whatsoever, the terms of the present warranty. The express warranties herein contained exclude all other express, implied or statutory warranties. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES INCLUDING THE WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR ANY PARTICULAR PURPOSE.

**Right to Inspect** – Dion-Ag and its authorized agents reserve the right to inspect the purchaser's Dion-Ag product to determine if a defect in material or workmanship exists prior the commencement of any covered repairs. It is the purchaser's responsibility to ensure availability and/or delivery of the product to Dion-Ag for the purpose of inspection.

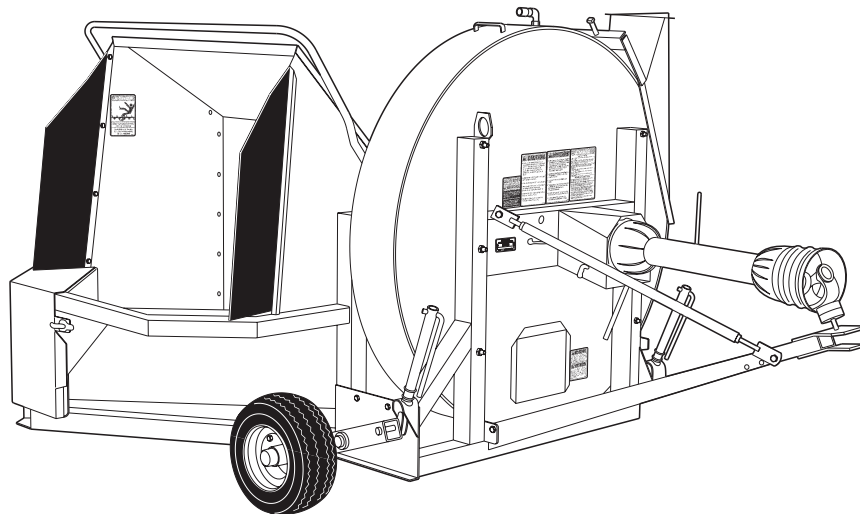
**Right to Make Design Changes** – Dion-ag reserves the right to make changes in the design and other changes in its products at any time and from time to time without notice and without incurring any obligation of its part to modify, improve or add to products previously ordered from Dion-Ag and sold or shipped by Dion-Ag.

**Liability** – Dion-Ag Inc. shall not be liable, if, during the use of the machinery and/or attachment, the security guards have been removed, modified, or have not been properly maintained.

The Warranty shall not apply if the instructions mentioned in this manual have not been followed completely and correctly. Nor will the warranty apply if the owner or any third party modifies the machine without Dion-AG's knowledge and/or authorization. Every purchaser, when buying a Dion-Ag machine, agrees and undertakes to use and operate the machinery and its component parts safely, and in accordance with all applicable laws, and in accordance with the Operator's Manual. Furthermore, the purchaser agrees and accepts to indemnify and hold harmless Dion-Ag for all losses and damages to any person or property resulting from the purchaser's non-compliance with the terms and conditions of this warranty. Each purchaser further agrees to bring the warranty to the attention of any subsequent purchaser, and to obtain agreement therein as a condition of resale or transfer.



## FORAGE BLOWER S55



### TO OUR CUSTOMER

We appreciate your confidence in Dion Farm Equipment and thank you for your trust. In preparing this manual, we hope we have furnished you with a valuable tool for operating and maintaining this fine machine. Use this manual as your guide. Practicing the instructions given here will result in many years of dependable service from your machine.

Your Dealer can give you assistance with parts and specially trained personnel to assist you in repair and maintenance.

Call your Dealer if you need any assistance or information.

# TABLE OF CONTENTS

<b>SPECIFICATIONS</b> .....	5
<b>SERIAL NUMBER LOCATION</b> .....	6
<b>CHECK LIST</b> .....	7
<b>FOREWORD</b> .....	8
<b>SAFETY RULES</b> .....	9
SAFETY ALERT SYMBOL .....	9
FOLLOW AS SAFETY PROGRAM .....	9
A WORD TO THE OPERATOR .....	9
PTO OPERATION .....	10
RECOMMENDED WORKING AREA .....	11
PROCEDURES FOR STOPPING THE FORAGE BLOWER .....	12
GUARDS AND SHIELDS .....	12
SAFETY SIGNS .....	13
SAFETY SIGN APPLICATION PROCEDURE .....	14
<b>ASSEMBLY INSTRUCTIONS</b> .....	15
DRIVELINE ASSEMBLY INSTRUCTIONS .....	15
1000 RPM GEARBOX ASSEMBLY INSTRUCTIONS .....	17
HYDRAULIC WHEELS LIFT SYSTEM .....	21
<b>OPERATING INSTRUCTIONS</b> .....	24
DRIVELINE SHAFT ALIGNMENT .....	24
RUNNING SPEED .....	24
WHEEL LIFT SYSTEM .....	25
TRANSPORTING INSTRUCTIONS (WITHOUT GEARBOX) .....	25
TRANSPORTING INSTRUCTIONS (WITH 1000 RPM GEARBOX) .....	26
FORAGE BLOWER LIFTING HOOKS .....	27
MAINTENANCE DOOR .....	27
WATER SYSTEM .....	27
SPEED REDUCER .....	28
HYDRAULIC WHEEL SYSTEM (OPTION) .....	29
<b>LUBRICATION</b> .....	30
DRIVELINE .....	30
SPEED REDUCER .....	30
LUBRICATION CHART .....	30
<b>ADJUSTMENTS &amp; MAINTENANCE</b> .....	33
ROTATING OUTLET .....	33
FAN ADJUSTMENT .....	33
SPOUT KNIFE ADJUSTMENT .....	34
FAN BLADE REPLACEMENT .....	36
INSTRUCTIONS FOR REASSEMBLING THE FAN SHAFT .....	37
DRIVELINE SHEAR BOLTS .....	39
AUGER ADJUSTMENT .....	39
AUGER INTERMEDIATE BELT TENSION .....	41
AUGER DRIVE BELT TENSION .....	41
AUGER BELT REPLACEMENT .....	42
AUGER BRAKE .....	42
AIR INTAKE CONTROL .....	42
SUGGESTED INITIAL AIR INTAKE ADJUSTMENTS .....	43
DISMANTLING AND REASSEMBLY OF DRIVELINE ROTATING GUARDS .....	43
ECCENTRIC LOCKING COLLAR INSTALLATION .....	43
SPEED REDUCER .....	44
CHAIN TENSION CHECK .....	44
CHAIN TENSION ADJUSTMENT .....	44
ALIGNMENT AND ADJUSTMENT OF THE SPEED REDUCER .....	45
ASSEMBLING THE WHEEL HUBS .....	46
<b>STORAGE</b> .....	47
<b>TROUBLESHOOTING</b> .....	48



# SPECIFICATIONS

Specifications and design are subject to change without notice and without liability from the manufacturer therefore.

## MAIN FAN

Main fan	59" (150 cm)
Blades	8
RPM.	540
Speed at blade tip:	
540 RPM	8340 ft/min. (2542 m/min)
650 RPM	10038 ft/min. (3060m/min)

## MAIN AUGER

Length	55" (140 cm)
Diameter	14" (36 cm)
Pitch	10" (25 cm)
RPM.	500
RPM (with reducer)	601
Overall length with pole	129" (378 cm)
Overall width	84" (213 cm)

## DRUM OUTLET HEIGHT

Transport position	70" (178 cm)
Operating position (wheels lowered)	61" (155 cm)

## HOPPER

Height (operating position)	21" (53cm)
Inlet width	42" (107cm)
Inlet depth	30" (76cm)
Tires	18.5 X 8.5 - 8
Tires (with hydraulic lift)	18.5 X 8.5 - 8
Weight	1350 lbs (610Kg)

## RECOMMENDED TRACTOR POWER

540 RPM - 14" dia. auger	60 to 160 HP
540 RPM - 16" dia. auger	140 to 200 HP
1000 RPM - 14" dia. auger.	130 to 200 HP
1000 RPM - 16" dia. auger	150 to 200 HP

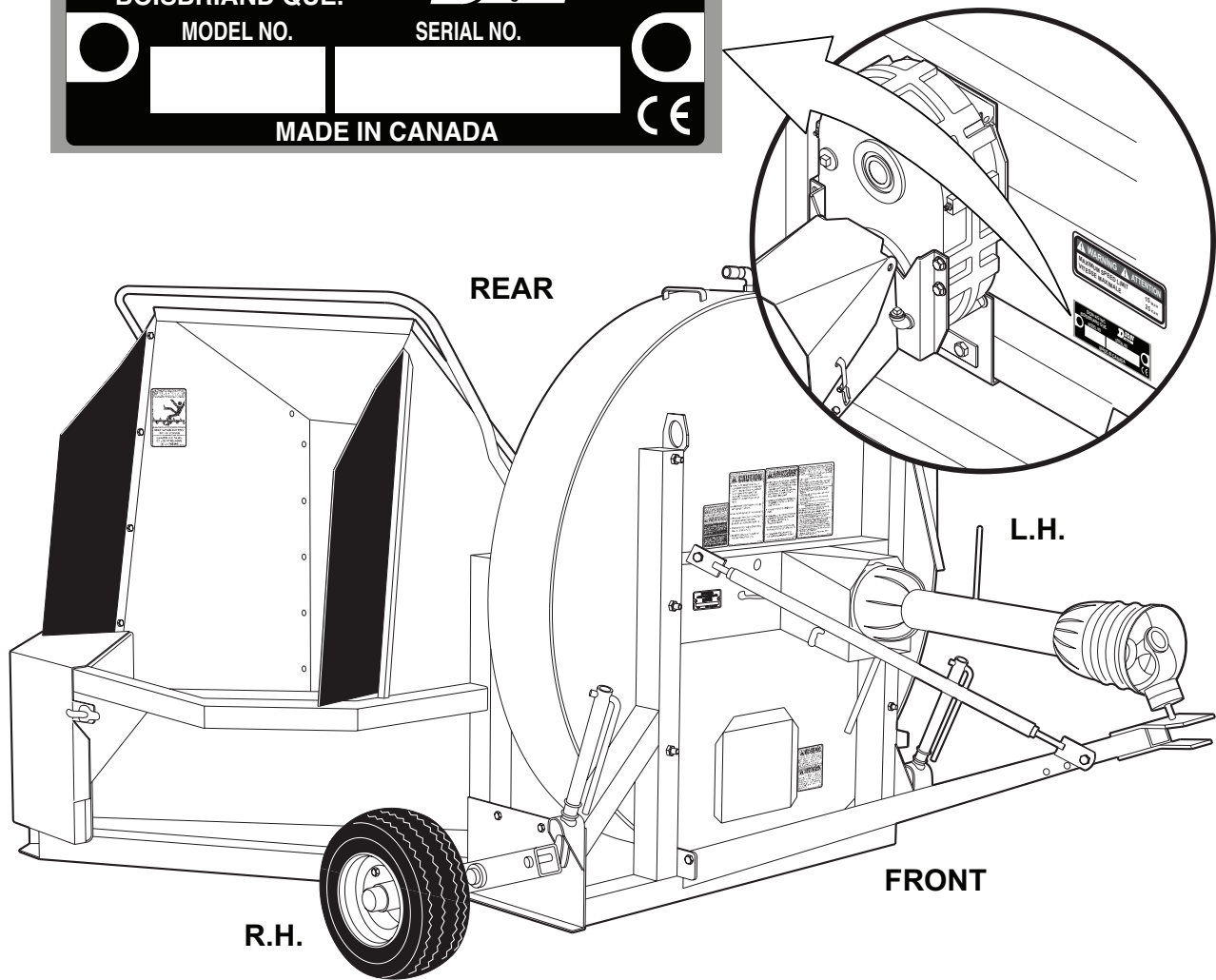
# SERIAL NUMBER LOCATION

For your convenience, write down in full in this manual both the model and serial numbers of your machine, as shown on the name plate illustrated below. Always mention both the model and the serial numbers when ordering parts or regarding any other correspondence referring to your machine.

Write down your number here:

MODEL NO.

SERIAL NUMBER



# CHECK LIST

---

## PRESEASON CHECKS

- Check auger brake.
- Check tension of belts. Check all sheaves for correct alignment.
- Check all adjustable components for correct setting (blower and auger).
- Check tire pressure. See specifications.
- Check wheel bolts. They should be tighten to a recommended torque of 85 to 95 lbs/ft.
- Perform complete lubrication and servicing of the machine according to Servicing. Make sure all grease fittings are in place and taking grease properly. Check transmission fluid levels if you have the option.
- Check transmission chain tension
- Look for loose or missing bolts and parts.
- Run the machine in a stationary position at half-speed for a short period of time. Shut off tractor engine. Make sure all moving parts have stopped, then inspect bearings for over-heating, excessive wear, or loose flanges and lock collars.
- Make sure the proper operating adjustments have been made.
- Make sure all shields are installed. Review Safety Precautions.
- Check for wear on parts (paddles, blower and auger bottoms, etc.).
- Make sure holes for the injection of water in the fan and the feed table are not obstructed.

## DAILY CHECKS

- Check auger brake
- Remove all crop residue and wipe off oil and dirt.
- Lubricate and service the machine according to the Servicing section.
- Check chain and belt tension. Check all sheaves for correct alignment.
- Check tire pressure. See Specifications.
- Make sure Blower is hooked to tractor correctly, and that the safety chain is installed securely. Make sure all controls are operable.
- Make sure that all shields are in good condition on the blower (with special attention to the driveline shields).



# FOREWORD

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## TO OUR CUSTOMER

The following pages and illustrations are printed to help supply you with the knowledge to better operate and service your Dion Forage Blower. Any piece of equipment needs, and must have a

Certain amount of service and maintenance to keep it in top running condition. We have attempted to cover all the adjustments required to fit most conditions; however, there may be times when special care must be taken to fit a condition.

Study this operator's manual carefully and become acquainted with all the adjustments and operating procedures before attempting to operate your new equipment. Remember, it is a machine and it has been designed and tested to do an efficient job in most operating conditions and will perform in relation to the service it receives.

If special attention is required for some conditions, ask your Dion Dealer; his parts and Service Organization will be glad to help and answer any questions on operation and service of your new machine.

## THIS MANUAL SHOULD REMAIN WITH THE MACHINE WHEN SOLD

This manual was prepared from the latest product information available at publication time. The Company reserves the right to make changes at any time without notice.

The safety section of your Operator's manual is intended to point out some of the basic safety situations which may be encountered during the normal operation and maintenance of your Forage Blower, and to suggest possible ways of dealing with these situations. This section is NOT a replacement for other safety practices featured in other sections of this book.

## WARRANTY INFORMATION

Your Dion Warranty for this machine appears on your copy of the Retail Purchase Order and Warranty Terms and Conditions Statement which you received from your dealer when you purchased the Blower.

As indicated on the Retail Purchase Order signed by you and your dealer, you, the equipment purchaser, shall assume charges for service calls or transportation of equipment to and from the location of servicing Dion dealer.

## SAFETY

The safety of the operator is one of the main concerns in designing and developing a new Forage Blower. Designers build in as many safety features as possible. However, accidents still occur, which can be avoided by proper thinking and a more careful approach to handling farm machinery and implements.

Read and implement the safety instructions detailed in the safety section of this manual.



# SAFETY RULES

## SAFETY ALERT SYMBOL



The symbol above calls your attention to instructions concerning your personal safety. It is found throughout the manual as well as on the machine to point out specific hazards and ways to avoid them. Always follow the instructions to minimize the risk of personal injury or death.

## DANGER, WARNING AND CAUTION

Whenever you see the words and symbols shown below, used in this manual and on decals, you **MUST** take note of their instructions as they relate to personal safety.



**DANGER:** Indicates an imminently hazardous situation that, if not avoided, will result in **DEATH OR VERY SERIOUS INJURY**.



**WARNING:** Indicates a potentially hazardous situation that, if not avoided, could result in **DEATH OR SERIOUS INJURY**.



**CAUTION:** Indicates a potentially hazardous situation that, if not avoided, may result in **MINOR INJURY**.

**IMPORTANT:** The word **IMPORTANT** is used to identify special instructions or procedure which, if not strictly observed, could result in damage to, or destruction of the machine, process or its surroundings.

**NOTE:** The word **NOTE** is used to indicate points of interest for more efficient and convenient repair or operation

## SIGNS



**WARNING:** **DO NOT** remove or obscure **Danger, Warning, Caution safety signs or Instruction signs that are not readable or are missing. Replacement signs are available from your Dealer in the event of loss or damage. The actual location of these Safety signs is illustrated on page 14.**

## FOLLOW A SAFETY PROGRAM

For proper operation of a Forage Blower, you must be a qualified and authorized operator. To be qualified, you must read and understand the written instructions supplied in this Operator's Manual, have training, and know the safety rules and regulations for the job.

Some local regulations specify that no one under the age of 16 years old, for example, may operate power machinery. This includes tractors. It is your responsibility to know what these regulations are, and obey them, in the operating area or situation. These will include, but are not limited to, the following instructions for proper operation



**WARNING:** **An operator should not use alcohol or drugs which can change their alertness or co-ordination. An operator on prescription or "over the counter" drugs needs medical advice on whether or nor she can properly operate machines.**

## A WORD TO THE OPERATOR

It is **YOUR** responsibility to read and understand the safety section in this manual before operating your machine. You must follow these safety instructions that take you step by step through your working day.

In reading this section, you will note that illustrations have been used to highlight certain situations. Each illustration is numbered and the same number appears in the text in parenthesis. This number is placed at the end of the written text that refers to the illustration.

Remember that **YOU** are the key to proper operation of the machinery. Good safety practices not only protect you, but also the people around you. Study the features in this manual and make them a working part of your safety program. Keep in mind that this safety section is written only for this type of machine. Practice all other usual and customary working precautions, and above all.

**REMEMBER - SAFETY IS YOUR RESPONSIBILITY. YOU CAN PREVENT SERIOUS INJURY OR DEATH.**



**WARNING:** **In some of the illustrations used in this Operator Instruction Book, panels or guards may have been removed for clarity. Never operate the machine without these components in position. If the removal of panels or guards is necessary to make a repair, they MUST be replaced before operation.**

# SAFETY RULES

---

- Wear appropriate clothing, safety boots or shoes. Do not operate the machine when visibility is bad, or during night, in poor lighting.
- Keep children away from the machine at all times.
- Carefully read all safety signs applied on the machine. If they are damaged, replace them immediately.
- Keep hands and clothes away from all moving parts.
- Never lubricate or clean any part while the machine or tractor engine is running.
- If a feeding or throwing mechanism should become jammed, never attempt to unblock it or remove any material when the machine is in motion or the tractor engine running.
- Never remove guards or make adjustments while the machine or tractor engine is running.
- Before starting the tractor engine, make sure all guards, shields, and doors are in place and properly secured and check the machine thoroughly for possible loose parts or bolts and tighten them.
- Be very careful when adjusting the fan blades and hopper auger.
- Before operating make sure that all projection pipes are properly fastened..
- Keep hands and feet out of hopper when the driveline is coupled to the tractor and the tractor engine is running.
- Do not climb over or around the hopper when the forage blower is in operation.
- If it is necessary to enter a silo, make sure it is well ventilated.
- Always keep the forage blower hitch pinned to tractor draw bar when operating..
- Make sure all rotating parts are stopped and the tractor engine is turned off before cleaning or servicing fan and conduct.
- After having performed any adjustments, be sure that there are no tools in or on the machine.
- When proceeding onto a public road, always use a safety chain with a minimum load of 6400 lbs (2910 kg) equipped with a identification plate and a hook with safety lock.
- When proceeding onto a public road with a Blower equipped with an hydraulic lift system, always close the two safety valves (see Figure 39 à la page 29).
- Always make sure wheel bolts are well tighten before proceeding onto a public road. The recommended torque is 85 to 95 lbs/ft.
- Always install the manual jack (item 5 in Figure 32 on page 26), before uncoupling the Blower with a 1000 RPM transmission.

## PTO OPERATION

- **POWER-TAKE-OFF DRIVE** - Before starting the tractor engine make sure that the PTO driveline locking device is properly engaged onto both the tractor and equipment drive shafts.
- Never wear loose clothing and keep people, especially children away from the driveline.
- Do not connect a tractor with a PTO speed of 540 RPM on a machine equipped with a 1000 RPM drive. Do not connect a tractor with a PTO speed of 1000 RPM on a machine equipped with a 540 RPM drive.
- Never proceed to the starting of the machine before making sure all PTO, machine and tractor shields are well installed in place.
- The PTO driveline shields should turn freely, be well connected and kept in good condition.
- Never step across any PTO driveline.
- Never use the PTO driveline as a step.
- Keep at least your height away from a rotating driveline.

# SAFETY RULES

## RECOMMENDED WORKING AREA FIGURE 1

The diagram in Figure 1 shows the recommended working area. It should be marked off with colored nylon or plastic ropes as portable barriers to define exactly the designated working areas.



**WARNING:** To prevent personal injury, keep all persons out of the working area.



**WARNING:** To prevent personal injury, the work area must be smooth, clean and free of debris and tools.

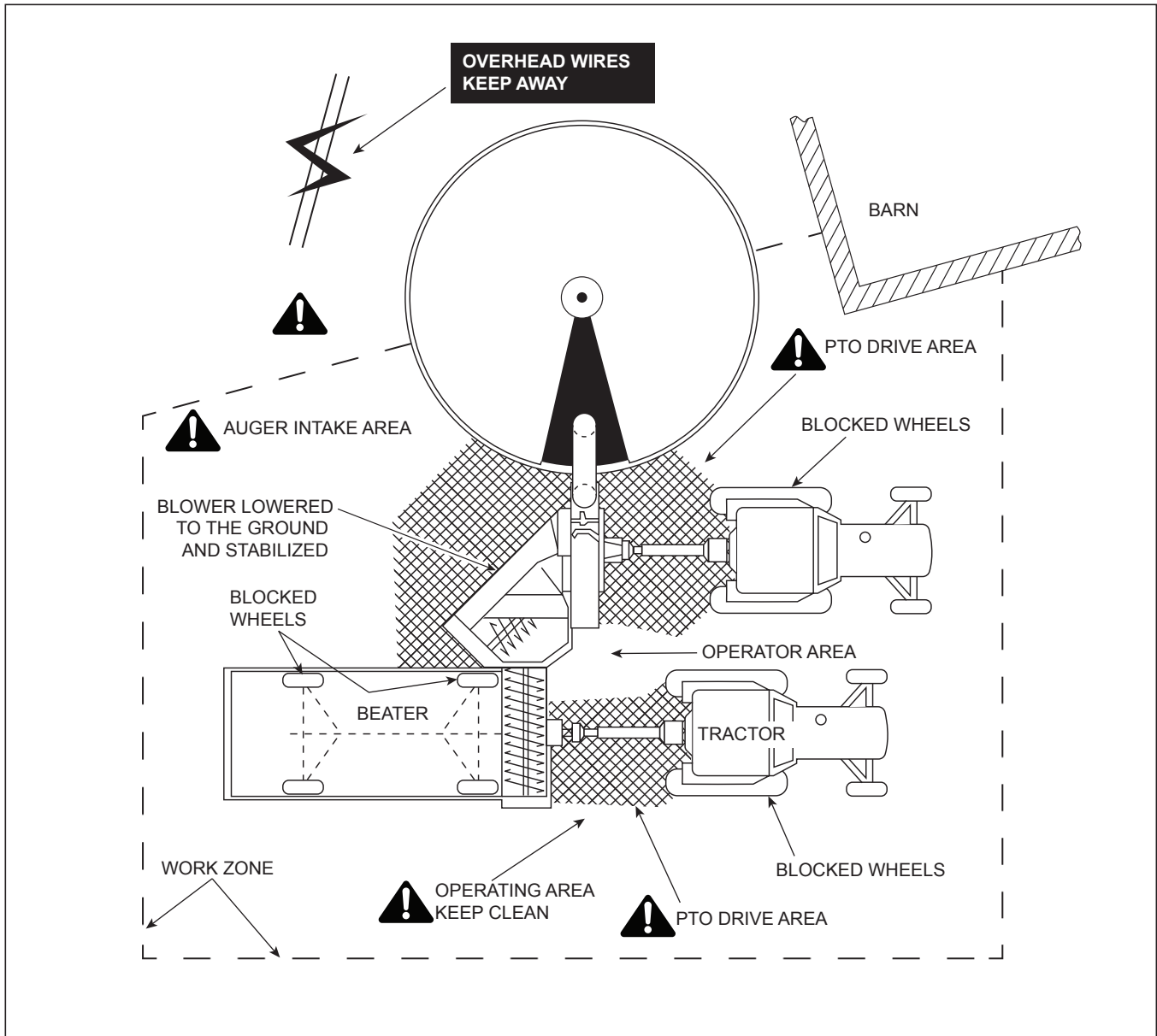


Figure 1 Typical working area diagram

# SAFETY RULES

## PROCEDURES FOR STOPPING THE FORAGE BLOWER



**WARNING:** To prevent personal injuries, do not perform any kind of maintenance work while the machine is running.

Before cleaning, adjusting, or greasing, the following procedures should be followed to stop the Forage Blower:

1. Disengage the tractor PTO.
2. Stop the tractor engine.
3. Set parking brake and remove the key.
4. Wait until all rotating movements have come to a complete stop.
5. Remove the PTO chain.
6. Remove the driveline from the tractor output shaft and attach it on its special support.



**WARNING:** Secure the PTO driveline to the support to prevent rotation of the fan or auger.

7. Block all equipment wheels.

## GUARDS AND SHIELDS - FIGURE 2

The Forage Blower is equipped with guards and shields at various locations. Observe the safety signs and follow their instructions.



**All guards and shields factory installed should be in place and maintained in good condition.**

1. The telescopic driveline which couples to the tractor is covered with a rotating shield (item 1).
2. A hinged guard covers the driveline (item 2).
3. A hinged guard covers the belt mechanism, driving the hopper auger (item 3).

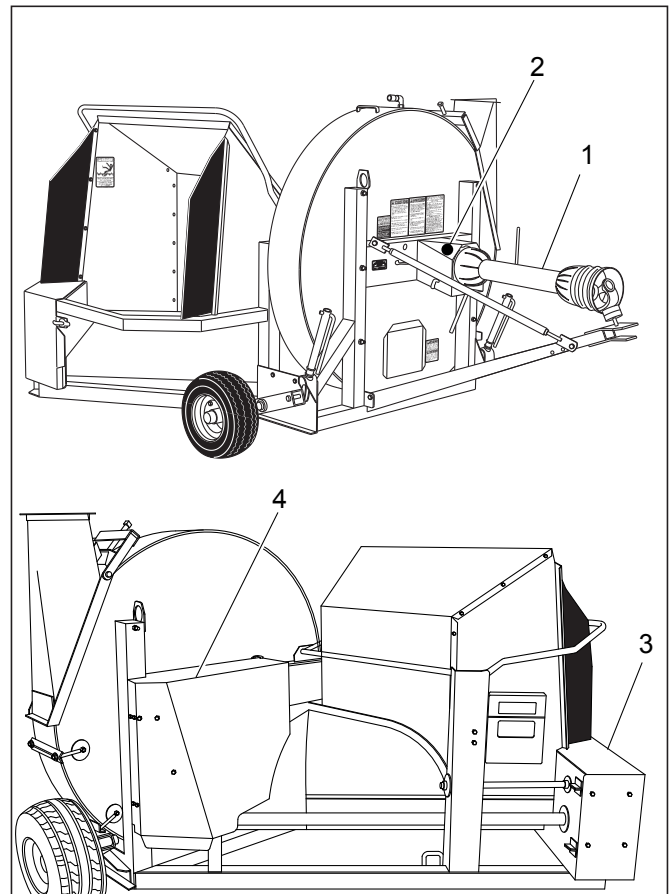


Figure 2 Guards and shields

4. A hinged guard covers the main fan rear mechanism (item 4).

# SAFETY DECALS

## SAFETY SIGNS - FIGURE 3

**NOTE:** When safety signs are worn or if machine is repainted, order a complete kit of safety signs.

**NOTE:** All safety signs should be kept as clean and free of dust as possible.



Figure 3 Safety decals

# SAFETY DECALS

## SAFETY SIGN APPLICATION PROCEDURE FIGURE 4, FIGURE 5 AND FIGURE 6

1. The surface should be free from dirt, grease, earth, or any other foreign material.
2. When the surface is dry, remove a portion of the backing paper and apply the decal in part and align its position as per the surrounding parts. Slowly peel off the remaining backing paper and apply hand pressure.
3. Press slightly on the surface of the safety sign to remove all air bubbles.

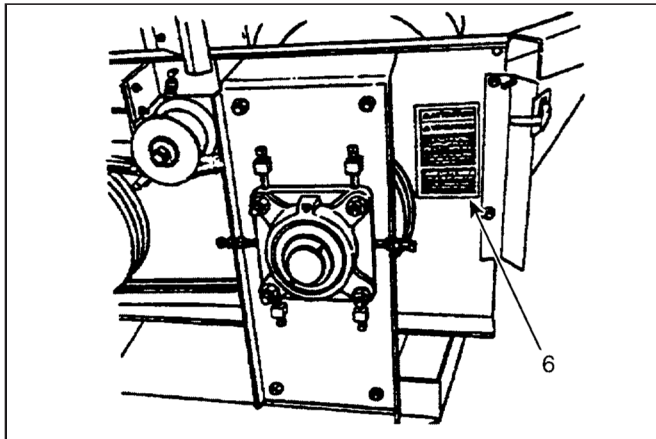


Figure 4 Safety sign locations

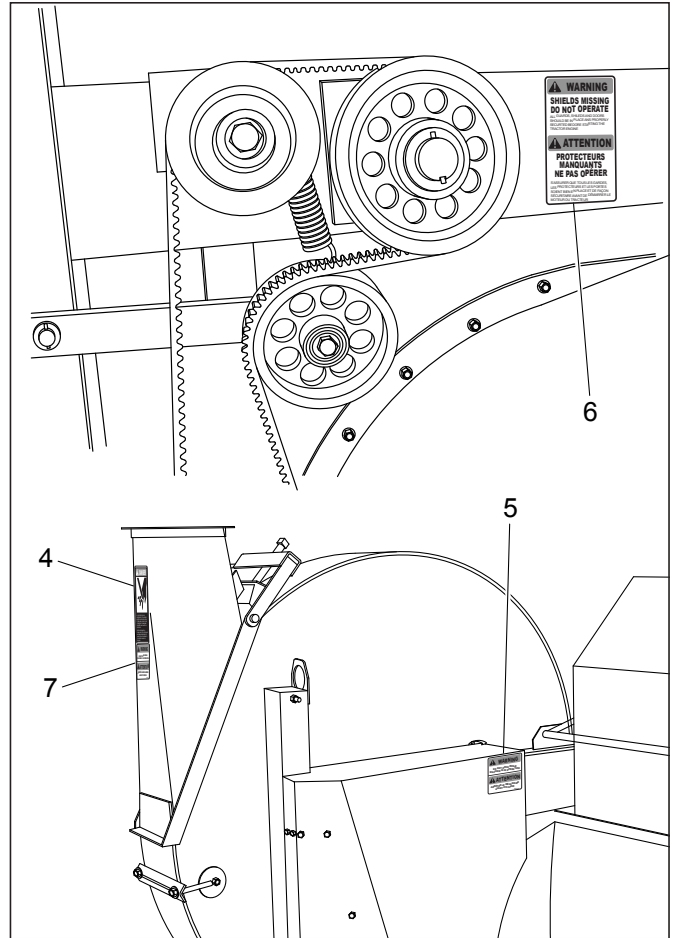


Figure 5 Safety sign locations

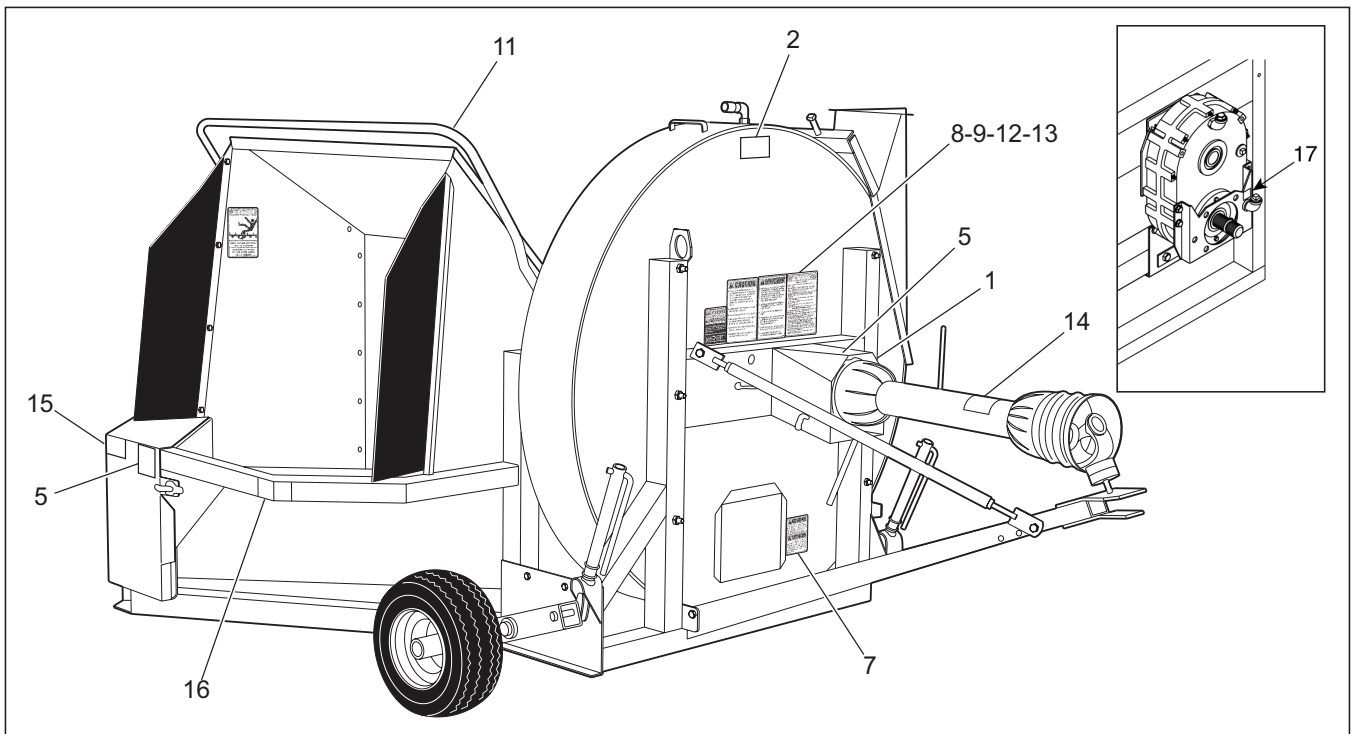


Figure 6 Safety sign locations

# ASSEMBLY INSTRUCTIONS

## DRIVELINE ASSEMBLY INSTRUCTIONS FIGURE 7 TO FIGURE 12

Remove all cables and/or wires used for transportation.

Attach the draw bar to the Forage Blower main frame using bolts (item 4) already installed. Do not tighten these bolts.

Attach the turnbuckle (item 5) to the Forage Blower using the bolts (item 6) already in place. Adjust the draw bar height in relation to the tractor.

Carry out this adjustment making sure both the Forage Blower and the tractor are on a level terrain (see Figure 29 à la page 24).

Tighten the draw bar nuts (item 4) and the turnbuckle nut (item 6) by applying a light pressure.

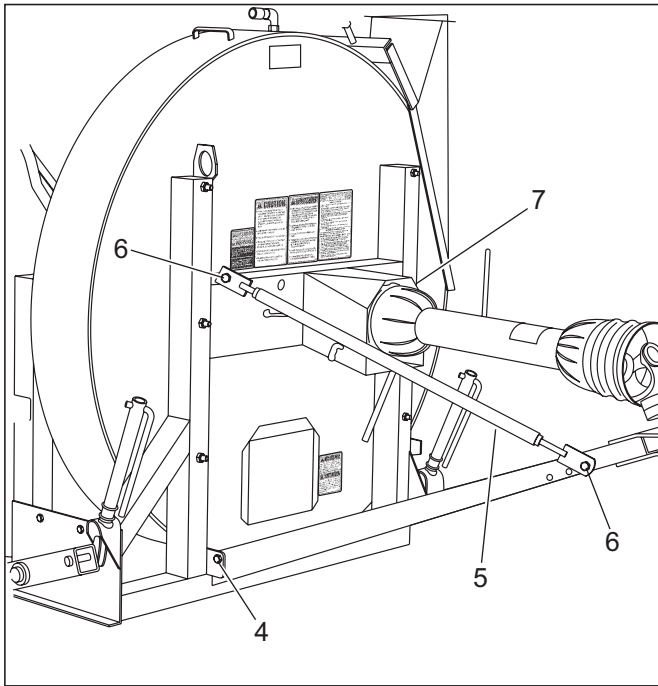


Figure 7

Open the driveline guard (item 7) then slide and bolt (item 8) the driveline to the fan shaft (item 9). Close the guard and secure using the locks (item 10). Tighten bolt (item 8) to 103 N-m.

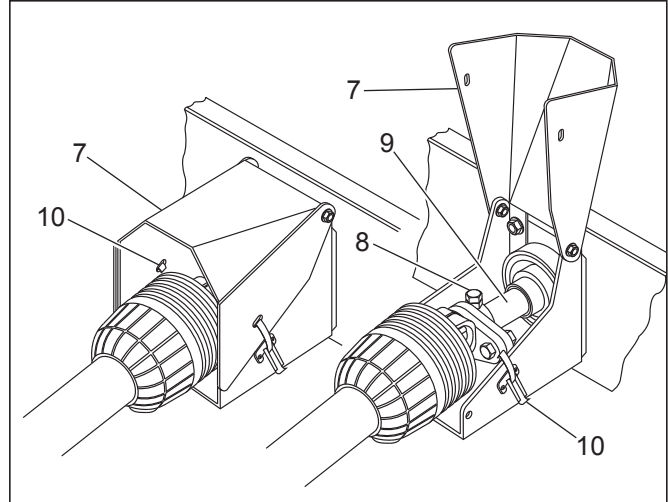


Figure 8

Place the end of the **540 RPM driveline** (item 1) that connects to the tractor, in its support (item 2) by pushing the yoke ring (item 3) then release it. The driveline will thus be held securely during transport.

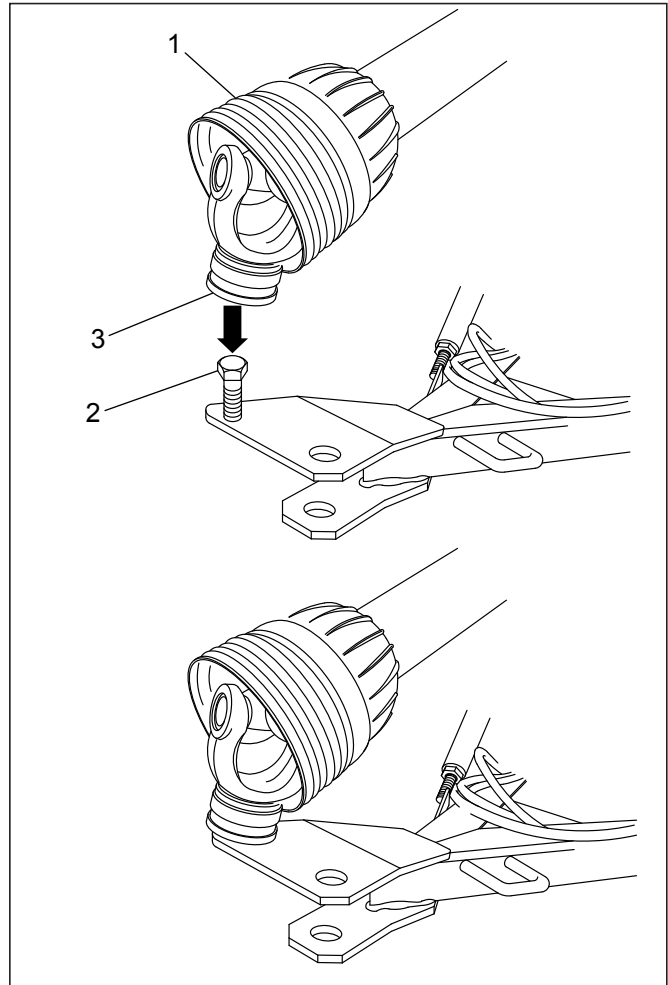


Figure 9 540 RPM driveline

# ASSEMBLY INSTRUCTIONS

Place the end of the **1000 RPM driveline** (item 1) that connects to the tractor, in its support (item 2) then secure with the special lock (item 3) which is itself secured with a safety spring pin (item 4).

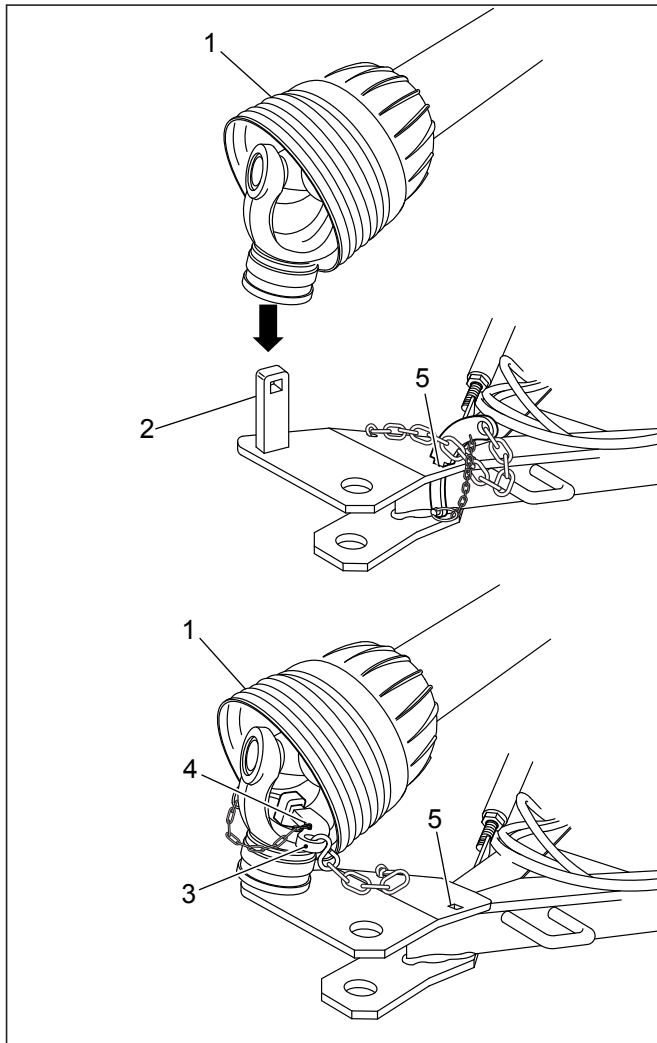


Figure 10 1000 RPM driveline

Lubricate the Forage Blower (refer to the lubrication Instructions) and make sure that all rotating parts move freely.

When the PTO is hitched to the tractor, insert the special lock in the hole (item 5) provided for that purpose.



**WARNING:** Always install the manual jack (item 12) when the 1000 RPM Blower is not hitched to the tractor.

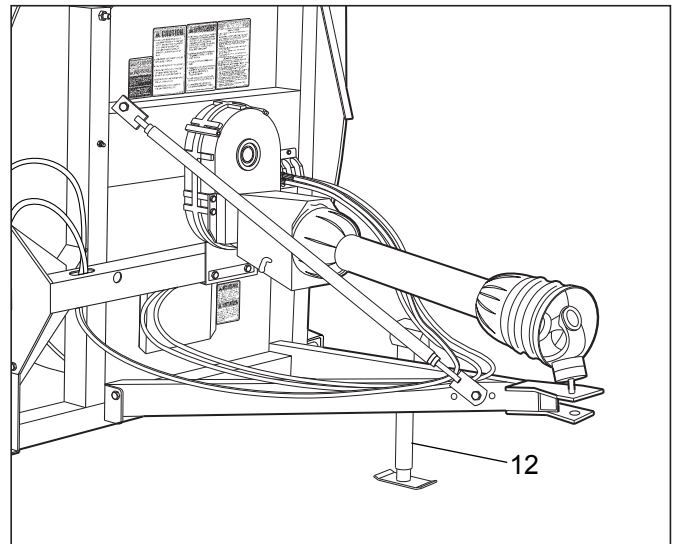


Figure 12 Manual jack in place

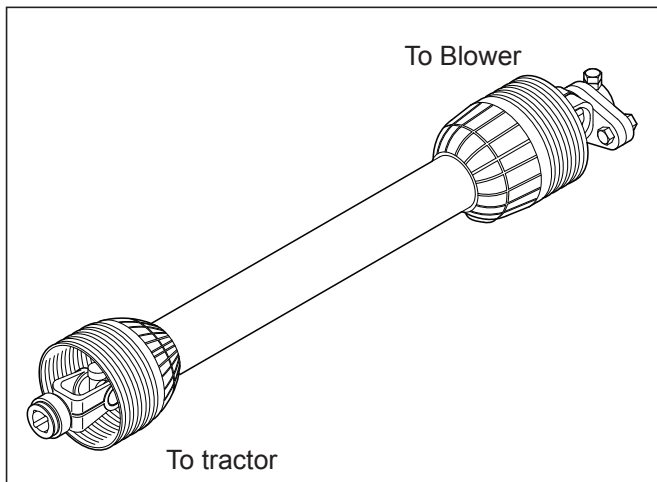


Figure 11 Driveline



# ASSEMBLY INSTRUCTIONS

## 1000 RPM GEARBOX INSTALLATION PROCEDURE WHEN TRACTOR'S PTO SHAFT IS LESS THAN 30" (76 CM) FROM THE GROUND - FIGURE 13 AND FIGURE 14

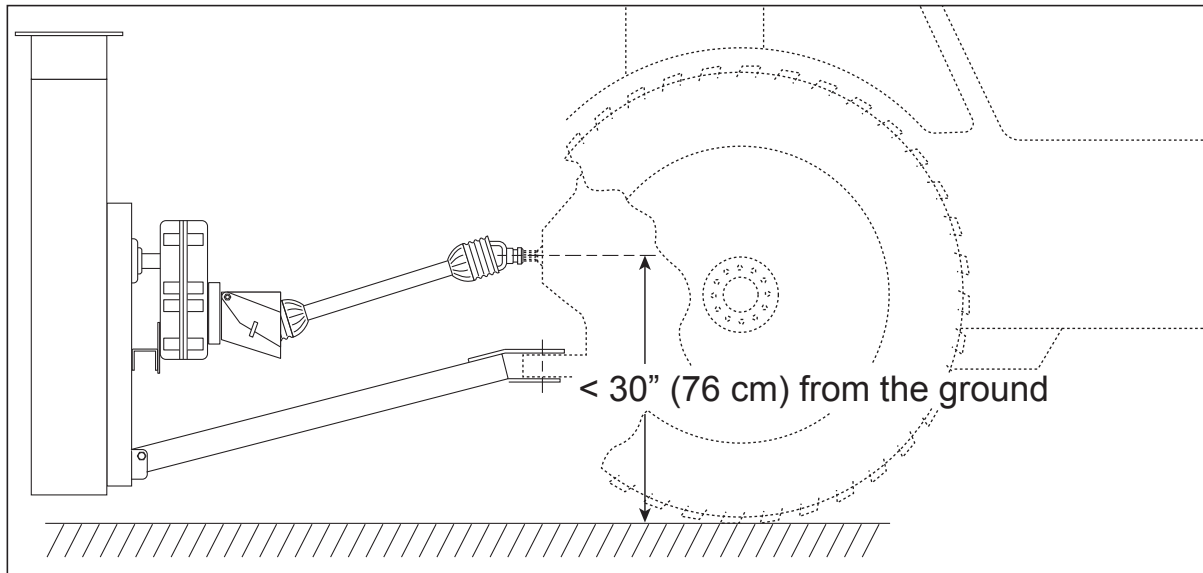


Figure 13 Tractor PTO shaft at less than 30" from the ground

**NOTE:** Must be installed on a blower with main shaft specially designed for a 1000 rpm transmission (without grooves, for driveline anchor bolt)

1. Remove driveline and guard (item 1).
2. Remove the two nuts (item 2), insert the two 1/2" dia. lock washers (item 18) then install the U-shaped support bracket (item 8).

**NOTE:** On the model with hydraulic lift, the U-shaped support bracket (item 8) is already in place.

3. Fasten the top plate (item 3) to the gearbox using the four 1/2" X 1 1/4" lg bolts and the four 1/2" lock washers.
4. Fasten the lower plate (item 4) to the gearbox using the three 5/16" X 5 1/2" lg bolts (item 20), twelve 5/16" washers (item 6) (the number of washers can vary according the final adjustment), three 5/16" lock nuts (item 21) and three spacers (item 14).

**NOTE:** The 12 washers (item 6) must be inserted between the plate (item 4) and the gearbox as needed. These washers will set the gearbox parallel to the machine frame and thus avoiding any pressure on the drive shaft.

5. Slide the gearbox onto the shaft (item 5).
6. **Align the gearbox as shown on page 46.**
7. Re-adjust the lower plate (item 4) with the flat washers (item 6).

8. Fasten the plate (item 7) to the lower plate (item 4) and to the U-shaped support bracket (item 8) with two 5/8" X 1 1/2" lg hex head bolt (item 15), two lock washers and two 5/8" nuts.
9. Install the upper elbow (item 9) in the appropriate hole of the housing. Use teflon tape.
10. Screw the four 5/8" X 1 1/2" lg bolts (item 15) with four 5/8" nuts to the plate (item 11).
11. Install the plate (item 11) to the gearbox using the two 1/2" X 1 1/4" bolts and two lock washers.
12. Install the lower elbow (item 12) and the coupling (item 10). Use teflon tape.
13. Fill up the gearbox with oil. Pour oil into the upper elbow (item 9) until the oil comes out of the lower elbow (item 12). Follow recommendations on page 32.
14. Screw the cap (item 17) to the elbow.
15. Install the breather (item 13).
16. Install the guard (item 1) with four 5/8" nuts.
17. Install the driveline.
18. Install the guard (item 16).

# ASSEMBLY INSTRUCTIONS

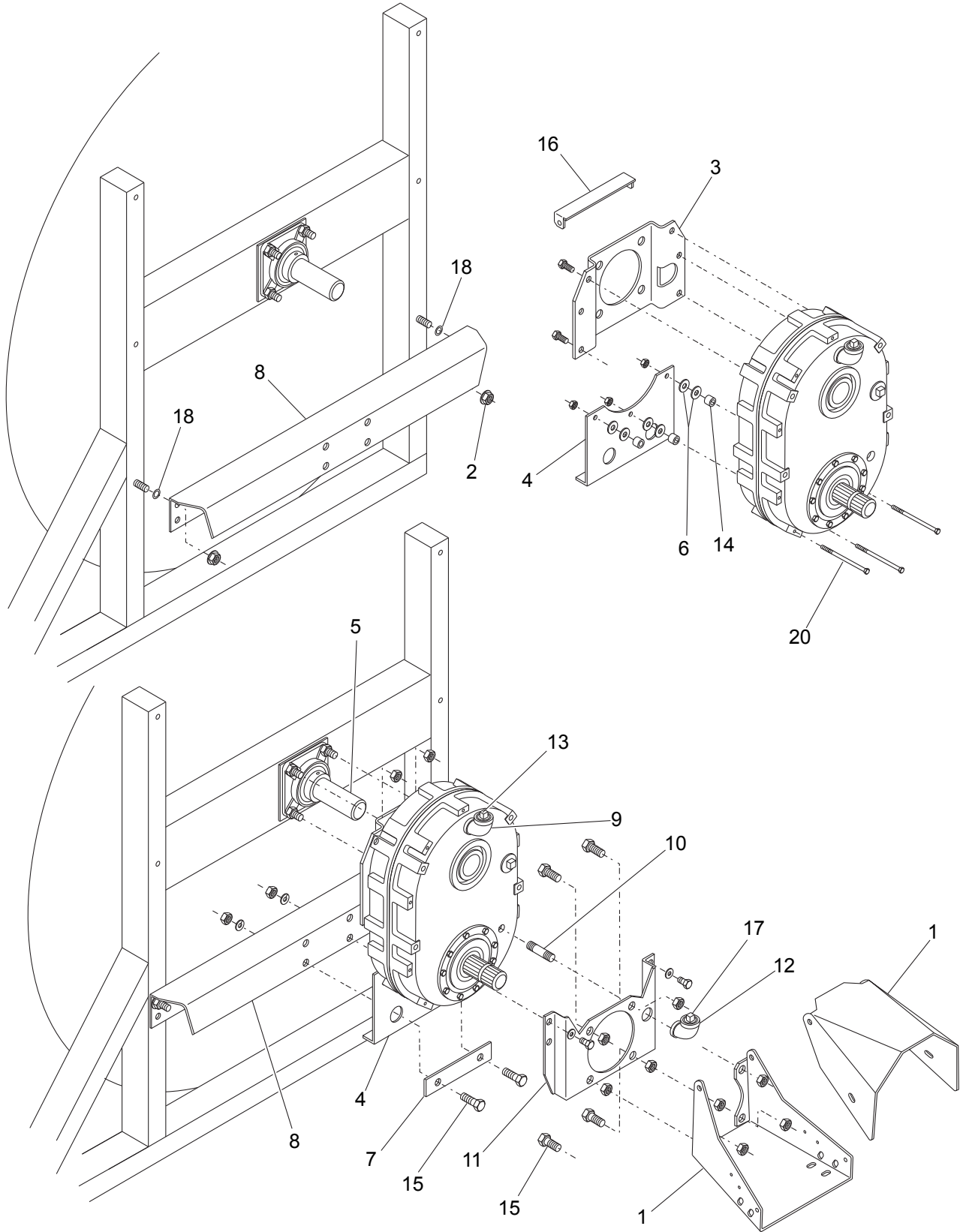


Figure 14 Assembling the 1000 RPM gearbox

# ASSEMBLY INSTRUCTIONS

## 1000 RPM GEARBOX INSTALLATION PROCEDURE WHEN TRACTOR'S PTO SHAFT IS MORE THAN 30" (76 CM) FROM THE GROUND - FIGURE 15 AND FIGURE 16

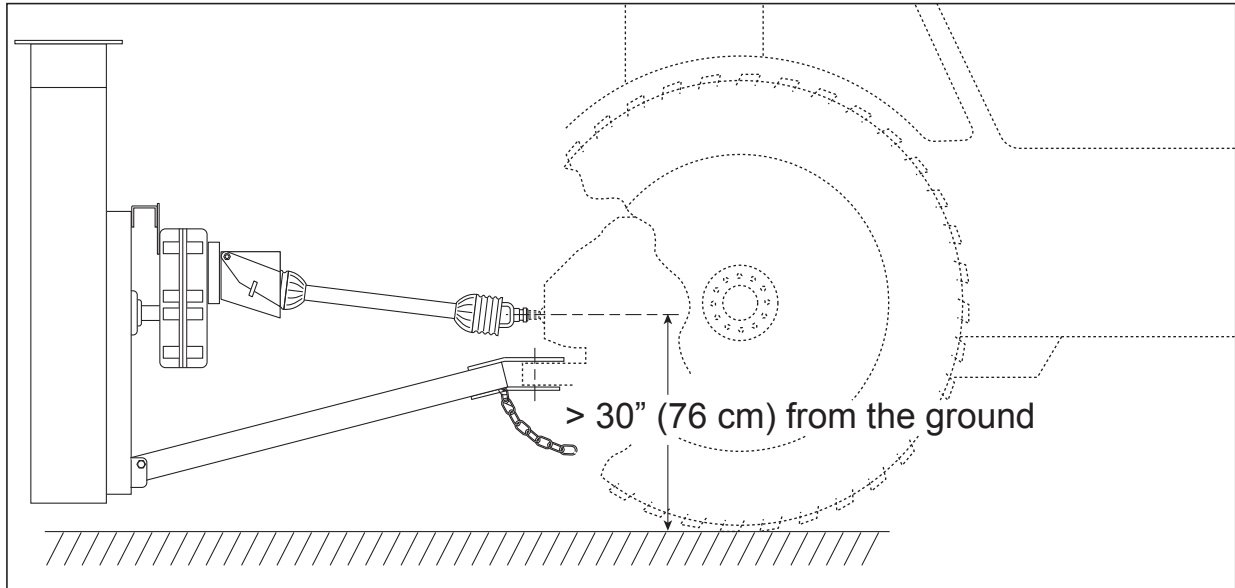


Figure 15 Tractor PTO shaft at more than 30" from the ground

**NOTE:** Must be installed on a blower with main shaft specially designed for a 1000 rpm transmission (without grooves, for driveline anchor bolt)

1. Remove driveline and guard (item 1).
2. Remove the two nuts (item 2), insert the two 1/2" dia. lock washers (item 18) then install the U-shaped support bracket (item 8).
3. Fasten the lower plate (item 4) to the gearbox using the four 1/2" X 1 1/4" lg bolts and the four 1/2" lock washers.
4. Fasten the upper plate (item 4) to the gearbox using the three 5/16" X 5 1/2" lg bolts (item 20), twelve 5/16" washers (item 6) (the number of washers can vary according the final adjustment), three 5/16" lock nuts (item 21) and three spacers (item 14).

**NOTE:** The 12 washers (item 6) must be inserted between the plate (item 4) and the gearbox as needed. These washers will set the gearbox parallel to the machine frame and thus avoiding any pressure on the drive shaft.

5. Slide the gearbox onto the shaft (item 5).
6. **Align the gearbox as shown on page 46.**
7. Re-adjust the upper plate (item 3) with the flat washers (item 6).
8. Fasten the plate (item 7) to the plate (item 3) and to the U-shaped support bracket (item 8) with two 5/8" X 1 1/2" lg hex head bolt (item 15), two lock washers and two 5/8" nuts.

9. Install the lower elbow (item 9) and coupling (item 10) in the appropriate hole of the housing. Use teflon tape.

10. Screw the adapter (item 19).
11. Screw the four 5/8" X 1 1/2" lg bolts (item 15) with four 5/8" nuts to the plate (item 11).
12. Install the plate (item 11) to the gearbox using the two 1/2" X 1 1/4" bolts and two lock washers.
13. Install the upper elbow (item 12) and the coupling (item 10). Use teflon tape.
14. Fill up the gearbox with oil. Pour oil into the upper elbow (item 12) until the oil comes out of the lower elbow (item 9). Follow recommendations on à la page 32.

15. Screw cap (item 17) to the adapter (item 10).

16. Install the breather (item 13).

17. Install the guard (item 1) with four 5/8" nuts.

18. Install the driveline.

# ASSEMBLY INSTRUCTIONS

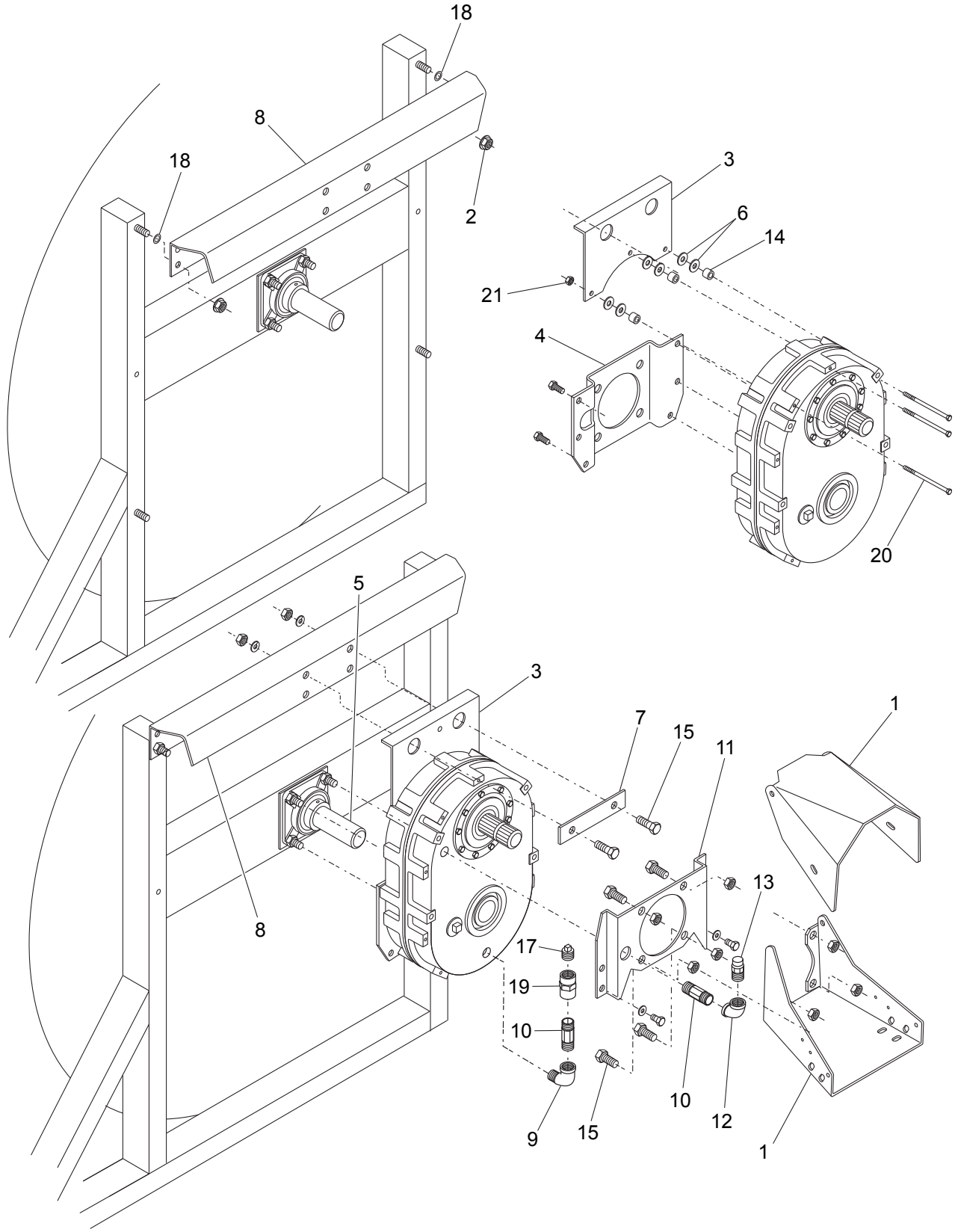


Figure 16 Assembling the 1000 RPM gearbox

# ASSEMBLY INSTRUCTIONS

## HYDRAULIC WHEEL INSTALLATION INSTRUCTIONS

Follow this procedure to install the hydraulic wheels lift system.

1. Remove the two existing Blower wheels.

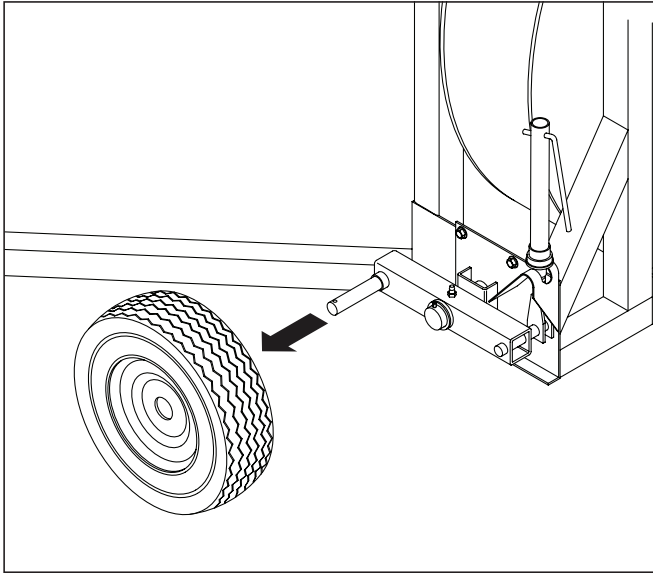


Figure 17

2. On each side of the Blower, remove the pivot axle (item 1) and the up-down handle (item 2).

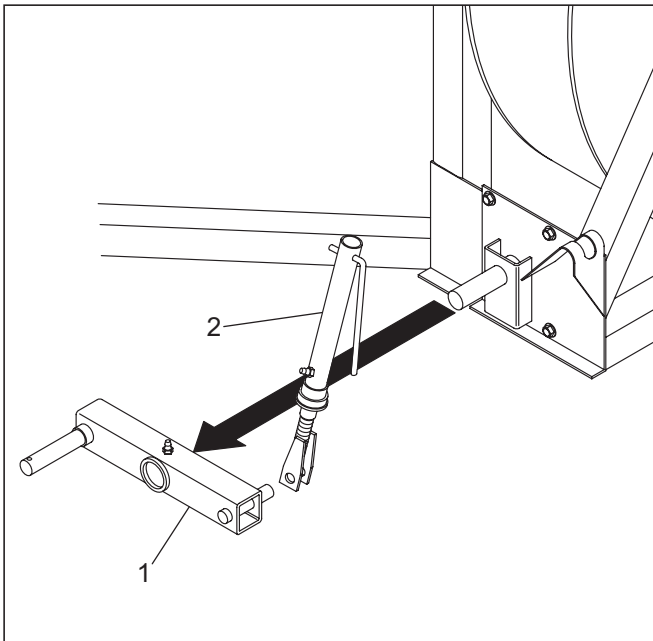


Figure 18

3. Cut and remove the up-down handle support bracket (item 3), on each side of the Blower. Replace the two 1/2" nuts (item 4) with two retaining washers (item 6). These washers will make the installation of the support much easier. Keep the two nuts (item 4) as well the bolt (item 5). They will be needed to install the support (item 6 of Figure 21).

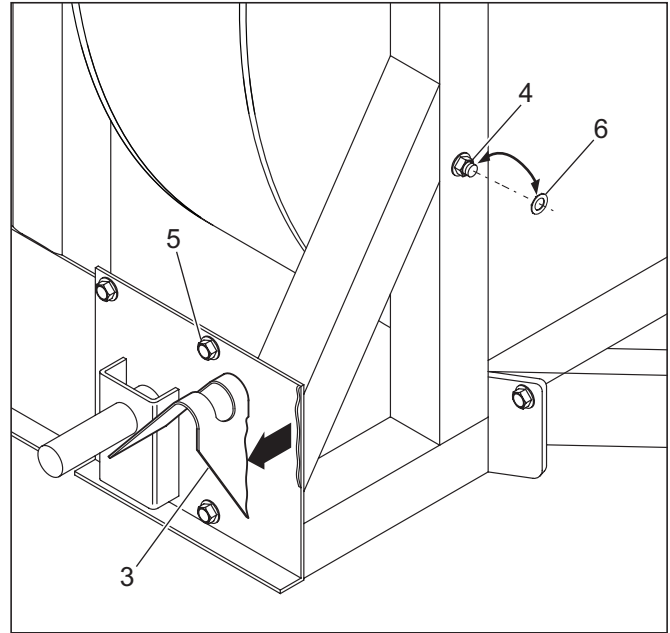


Figure 19

4. If necessary, grind the two sections indicated in Figure 20. This will allow the support (item 7 of Figure 21) to rest evenly on the frame.

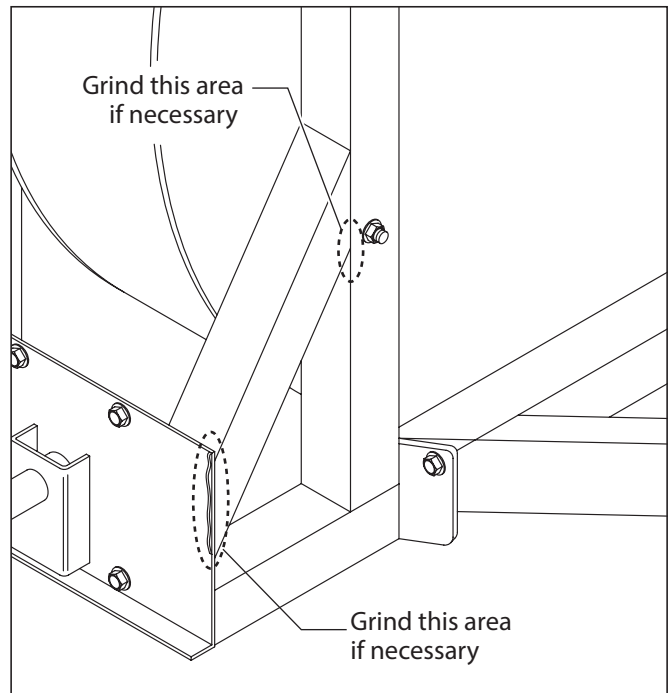


Figure 20

# OPERATING INSTRUCTIONS

- Install the support (item 7). Fasten the R.H. side with a 1/2" X 1 1/4" lg bolt (item 8) and a 3/8" X 1" lg bolt (item 9). If necessary, drill hole in frame in order to be able to install the bolt (item 8). Use one of the two 1/2" nuts (item 4) to tighten everything in place.

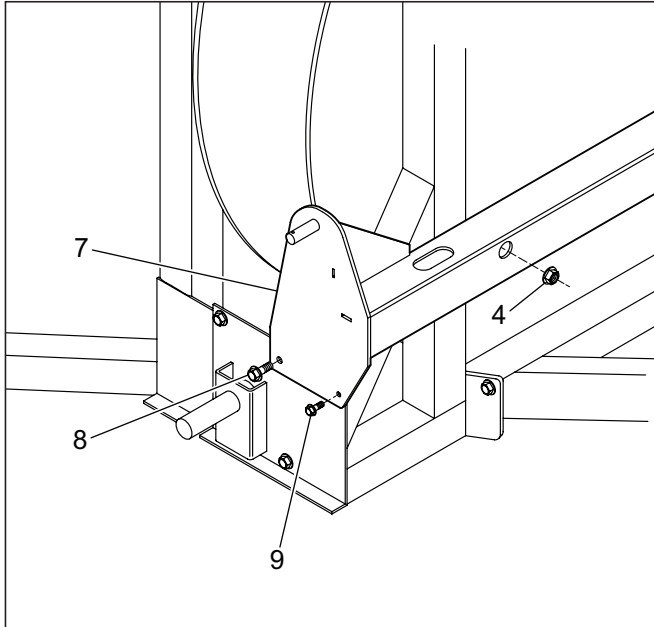


Figure 21

- Fasten the L.H. side of the support (item 7) with a 1/2" X 1 1/4" lg bolt (item 5) and a 1/2" nut (item 4). If necessary, drill hole in frame in order to be able to install the bolt (item 5).

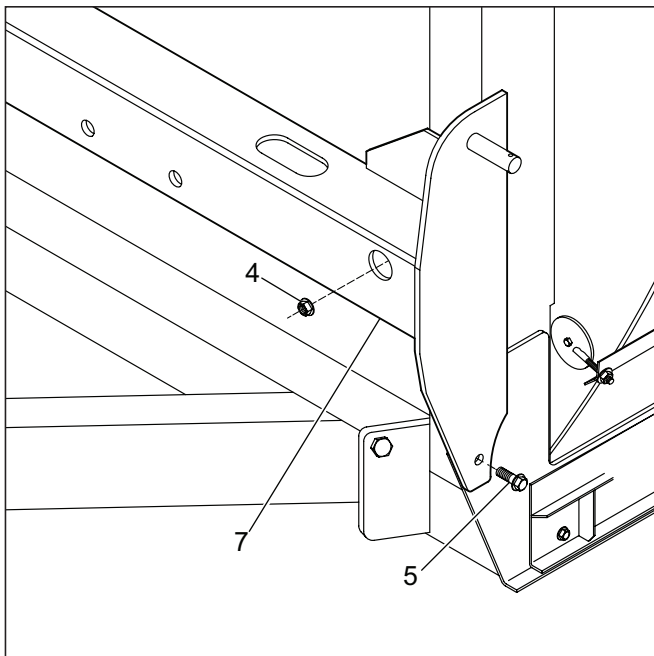


Figure 22

- Assemble both hydraulic cylinders. Each cylinder assembly consists of a cylinder (item 10), a valve (item 11), an adapter (item 12), a 90° adapter (item 13), a 90° adapter with limiter (item 14) and two hoses (items 15 et 16) with couplers (items 17).

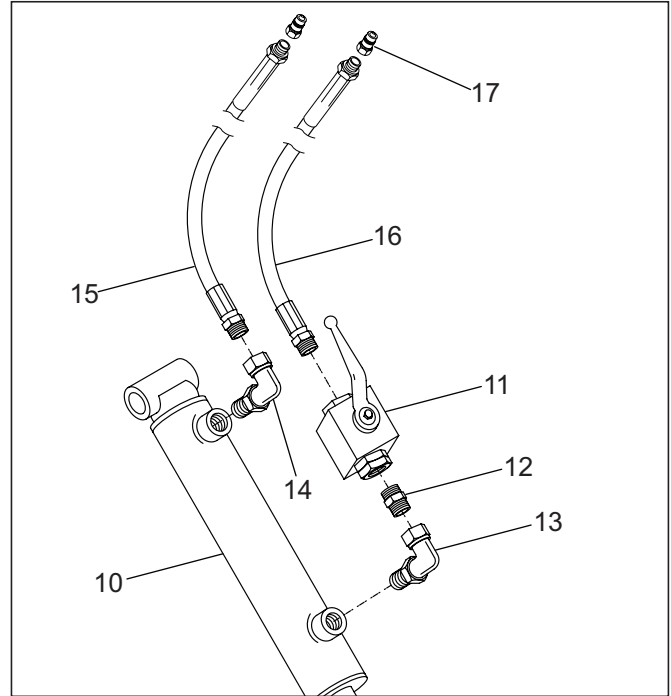


Figure 23

- Attach the hydraulic cylinder assembly (item 18) to the right pivot axle (item 19) and lock in place with a 3/16" X 1 1/2" cotter pin (item 20), as shown in Figure 24. Also attach a cylinder assembly to the left pivot axle.

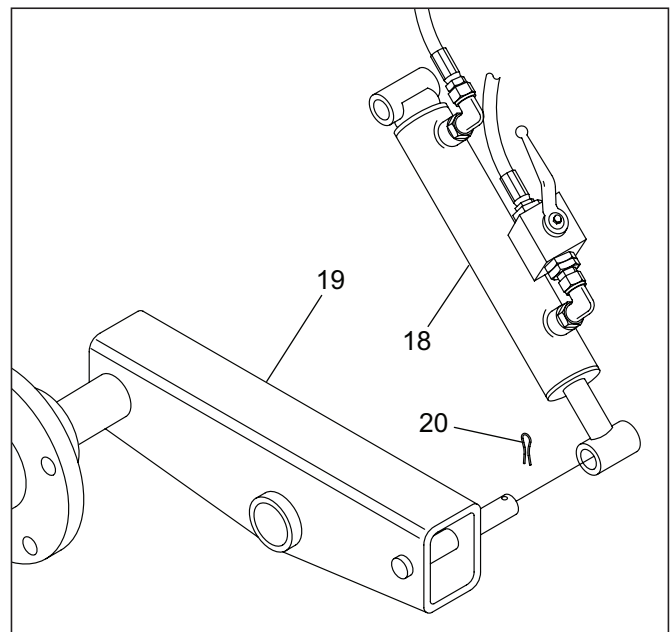


Figure 24

# OPERATING INSTRUCTIONS

9. Fasten each assembled axle, as shown in Figure 25. Use a 3/16" X 1 1/2" lg. cotter pin (item 19) to secure the cylinder assembly to the support. Use a 1/4" X 2" lg. spring pin (item 20) to lock the axle to the frame shaft. Insert two 1 1/2" X 14 gage spacers (item 21) as shown below. These two spacers can be taken from the parts previously disassembled.

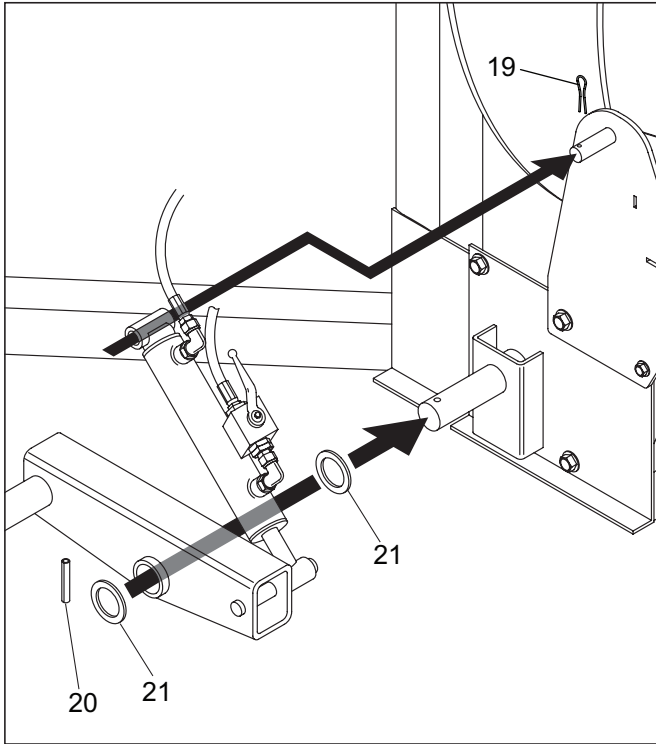


Figure 25

10. Install both new wheels on the Blower with five wheel bolts (item 22). Tighten to a recommended torque of 85 to 95 lbs/ft.

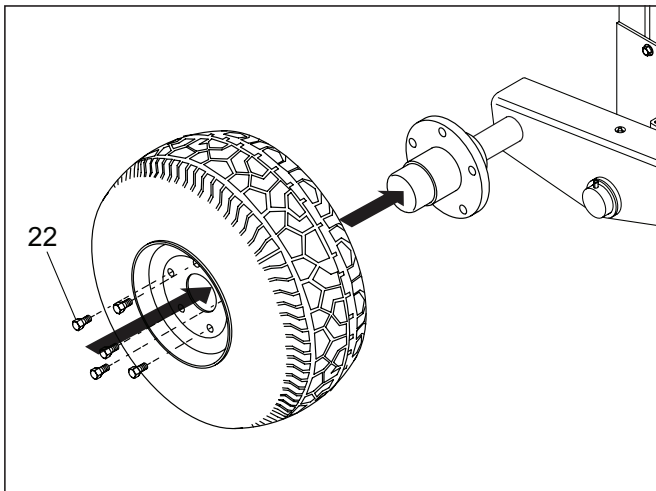


Figure 26

11. Connect all hydraulic hoses. Make sure both valve levers (item 23) are set to the transport position, as shown below.

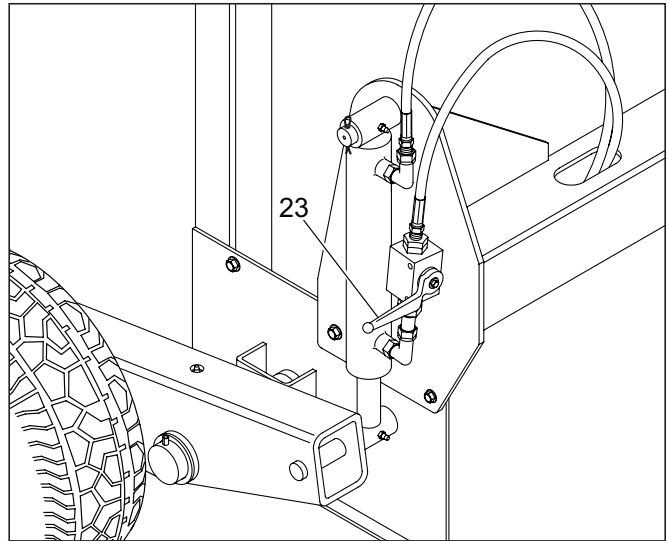


Figure 27

12. Install the hose support bracket (item 24) with two 5/16" X 3/4" lg. bolts and two 5/16" nuts.

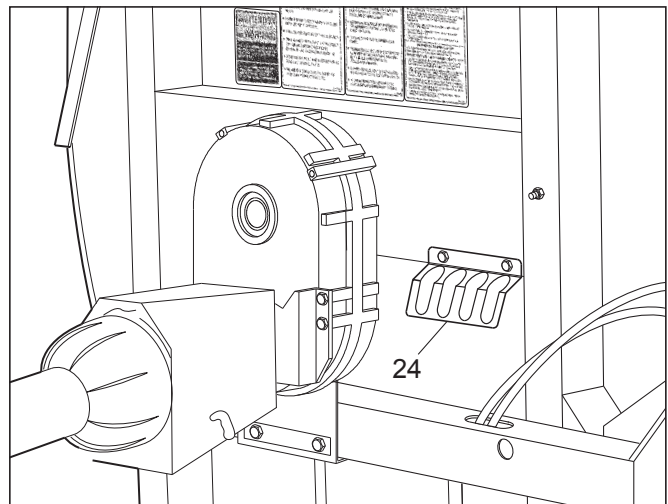


Figure 28

## DRIVELINE SHAFT ALIGNMENT FIGURE 29

**NOTE:** All driveline (item 1) should be aligned as straight as possible. Under no circumstances should the operating angle of a driveline exceed 10 degrees.

**CAUTION:** *The driveline should never extend beyond 63" (1,6 m) that is when measured at both ends of the driveline (item 2).*

**NOTE:** Verify the condition of all driveline shields before operating any machine.

**NOTE:** Blower must always be lowered to the ground and stabilized at the three corners, as shown below.

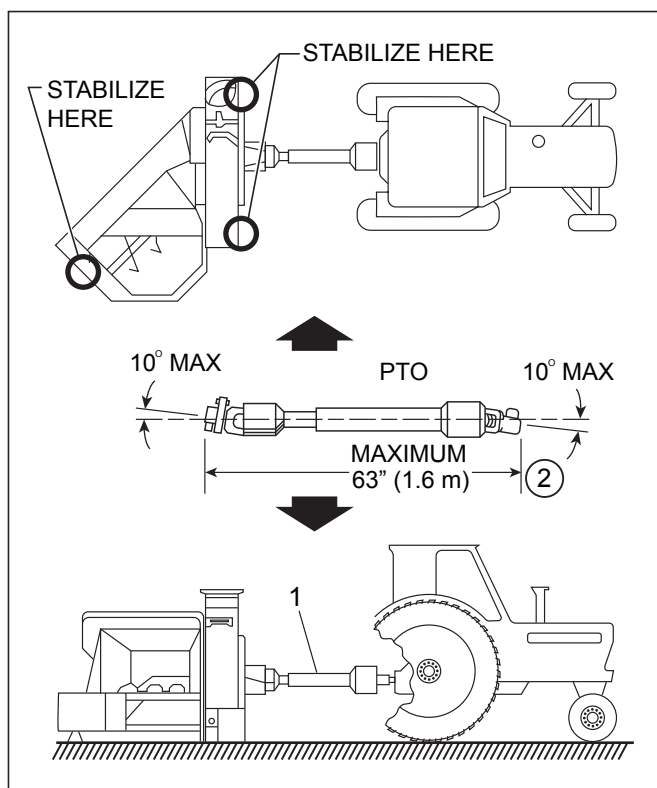


Figure 29 Driveline shaft alignment

**WARNING:** *Always keep blower hitch pinned to tractor draw bar when operating the Blower.*

The tractor parking brakes should be applied and the wheels blocked.

Connect the driveline to the tractor and verify carefully if the locking devices are properly engaged. Hook the safety chain to the tractor.

## RUNNING SPEED

**WARNING:** *Make sure that all guards, shields and doors are in place and properly secured before starting the tractor engine.*

Operate the machine at half speed for five minutes to loosen up bearings and to be sure that they are not heating. The machine should then be run at its normal speed for a short period of time. If everything is found satisfactory, the machine can be used at a moderate unloading speed.

**NOTE:** It is recommended to become familiar with the operation of the Forage Blower at the time of the first 4 or 5 forage box loadings before operating the machine at its maximum capacity.

**NOTE:** When operating, it is recommended to maintain tractor engine at FULL RUNNING SPEED: PTO must turn between 540 RPM (minimum) and 630 RPM (maximum) for 540 PTO units and between 1000 RPM (minimum) and 1050 RPM (maximum) when Blower is equipped with a speed reducer (1000-650).

The hopper auger control lever should be disengaged (item 11 in Figure 6 à la page 14) Start the tractor engine and bring the driveline speed to 630 R.P.M. MAXIMUM. Engage the hopper auger by raising the auger control lever. Start unloading forage in the hopper.

**DANGER:** *Keep hands and feet out of hopper.*

**CAUTION:** *When there is no forage to be blown the auger should be disengaged.*

**DANGER:** *Never walk on or near the hopper when it is running.*

**CAUTION:** *Always make sure the auger does not turn when the auger control lever is disengaged. If it does turn, refer to the ADJUSTMENTS section.*

**DANGER:** *If the feeding or throwing mechanism should become jammed, never attempt to unblock it or remove any material when the machine is in motion or the tractor engine is running.*



# OPERATING INSTRUCTIONS

## WHEEL LIFT SYSTEM - FIGURE 30

Before operating the Forage Blower, lower it to the ground. Use wooden blocks under the frame to support it on the ground and make it stable.

To level, simply turn the handle (item 1) of the lift screws (item 2) on both sides until the wheels are off the ground.

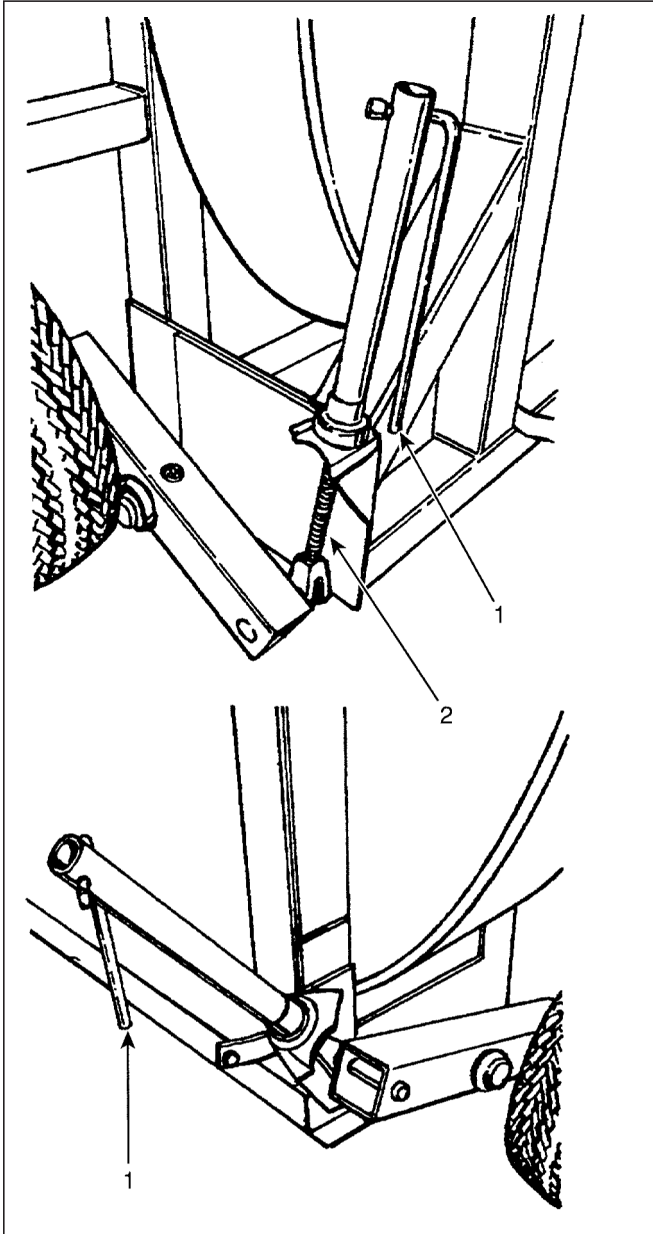


Figure 30 Wheel lift system

## TRANSPORTING INSTRUCTIONS (WITHOUT GEARBOX) - FIGURE 31

1. Put the driveline (item 1) in its transport support (item 2). Push the yoke ring then release it.
2. Install the safety chain (item 3) on the draw bar and tractor.
3. Lift the Forage Blower up by lowering the wheels at their maximum.

**NOTE:** Always use a hitch pin with a safety pin (item 4) for traveling.

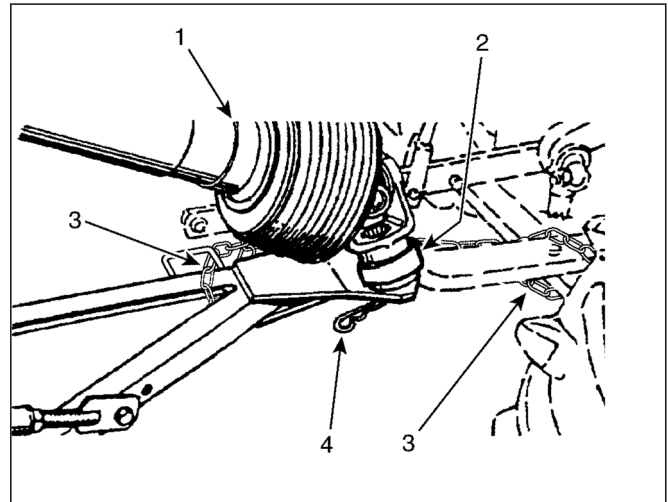


Figure 31 Driveline in transport position

**NOTE:** Maximum speed is 25 km/h (15 mph).

**NOTE:** A 6400 lbs (2910 kg) load safety chain with an identification plate and a hook with safety lock must be used when Blower is driven on a public road.

When the chain has been fastened, make a test run by moving the tractor forward and turning to the right and to the left to check the chain length. Should the chain be too short, or too long, make the necessary adjustments before going on public roads.

# OPERATING INSTRUCTIONS

## TRANSPORTING INSTRUCTIONS (WITH 1000 RPM GEARBOX) - FIGURE 32

1. Install the driveline end (item 1) coupling in its support (item 2).
2. Insert the lock (item 3) and block it with a spring locking pin (item 4).

**NOTE:** Always use a hitch pin with a safety pin (item 4 in Figure 31) for transport.

**NOTE:** Maximum speed is 25 km/h (15 mph).

**NOTE:** A 6400 lbs (2910 kg) capacity safety chain must be used when Blower is driven on a public road.

When the chain has been fastened, make a test run by moving the tractor forward and turning to the right and to the left to check the chain length. Should the chain be too short, or too long, make the necessary adjustments before going on public roads.



**WARNING:** Always install the manual jack (item 5) before unhitching the Blower equipped with a 1000 RPM gearbox.

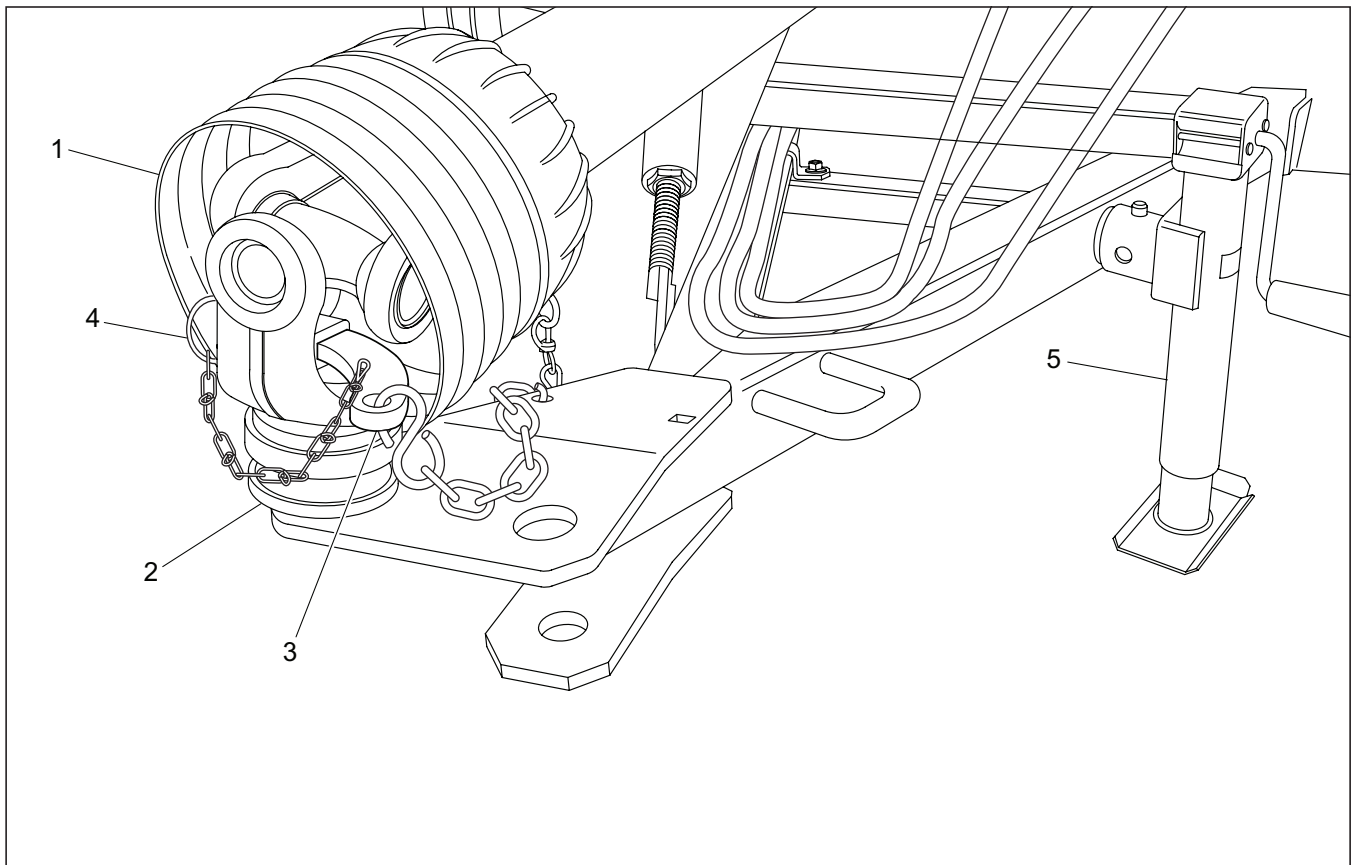


Figure 32 Blower with 1000 RPM gearbox in transport position

# OPERATING INSTRUCTIONS

## FORAGE BLOWER LIFTING HOOKS FIGURE 33 AND FIGURE 34

When the Forage Blower is to be lifted for transport on a trailer, use the lifting hooks (item 1).

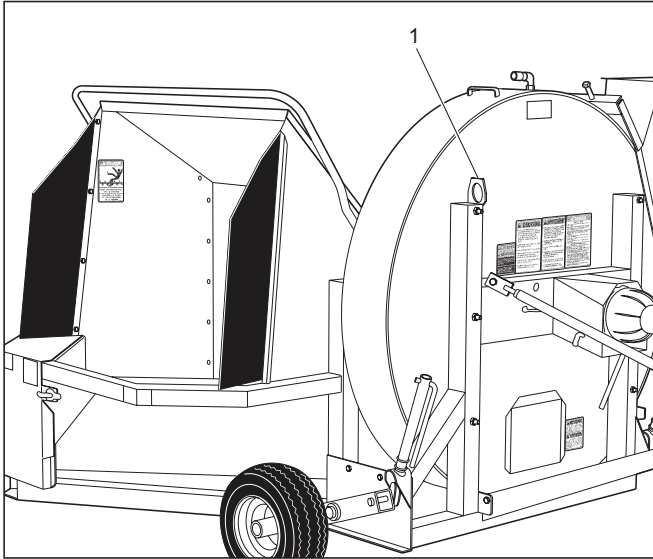


Figure 33 Lifting hooks

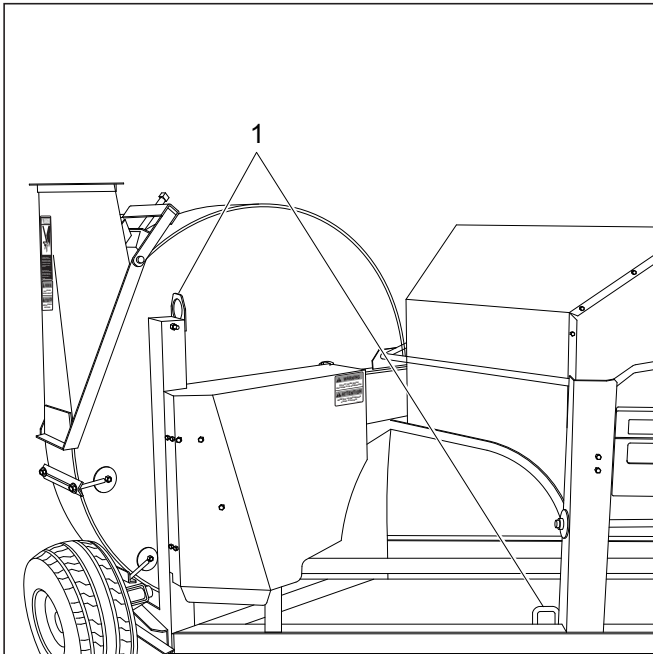


Figure 34 Lifting hooks

## MAINTENANCE DOOR - FIGURE 35



**WARNING:** Stop the tractor and remove the key before opening the maintenance door. Make sure rotation has stopped.

If the fan becomes jammed, the maintenance door should be removed in order to clean it. Unscrew both screws (item 1) then remove the door. Clean and reinstall the door (item 2) inserting the end inside (see arrow) and securely tighten both bolts (item 1).

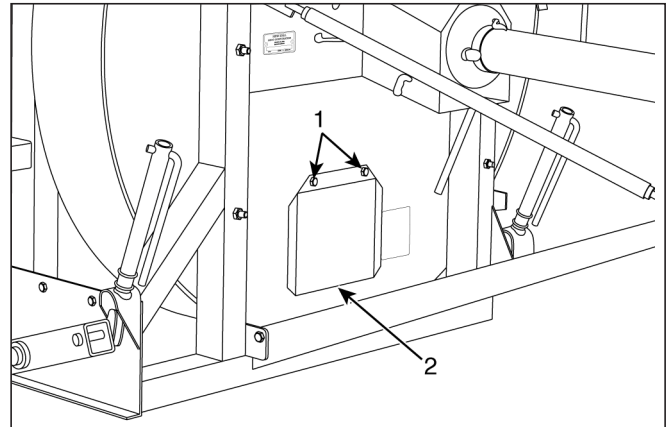


Figure 35 Maintenance door

## WATER SYSTEM - FIGURE 36

When the moisture content in most crops reaches 40 to 60 percent, a sticky liquid is produced when the material is blown through the Forage Blower fan. This liquid causes a gum deposit which accumulates both on the Forage Blower fan and on the contour. This residue build-up reduces the machine's efficiency and causes a «ticking» noise as well, which increases with increased accumulation.

In order to prevent this problem, use a garden hose connected to the "Y" valve (item 1) of the Forage Blower drum and inject a spray of water into the Forage Blower until it is free from any material build-up. The standard water inlet hole (item 2) is 1/8" (3 mm) dia. However, the inlet hole should be increased to 1/4" (6 mm) dia. if Blower is equipped with a Speed Reducer. If water doesn't flow, remove valve (item 1) and clean dirt in hole.

If there is build up of a sticky residue in the feed table, add water through the "Y" valve on the blower drum. See Figure 36.

**NOTE:** It is always recommended to add water during hay harvest. This will increase the performance of the Blower.

# OPERATING INSTRUCTIONS



**WARNING:** Make sure that both the tractor engine and the Forage Blower fan are completely stopped before inspecting the surfaces (inside lining) between forage unloadings.

The increase in crop moisture content, due to the addition of the water, is negligible. For example: when 19 liters (5 US gal.) of water are added to a 4-ton forage load with a moisture content of approximately 50%, the increase in moisture content will only be 1/4 of one percent, ending at 50.25%.

**IMPORTANT!**

To reduce the residue on the fan and contour, begin blowing before turning the water on. Turn the water off before unloading is complete.

If the water should enter the pipe section before the forage does, the pipe could become wet and the forage could stick to it causing a clogging.

While water is usually added to remove sticky residue, the addition of water can also improve the blowing performance by up to 15% for most crops, even though no sign of sticky deposits can be seen.

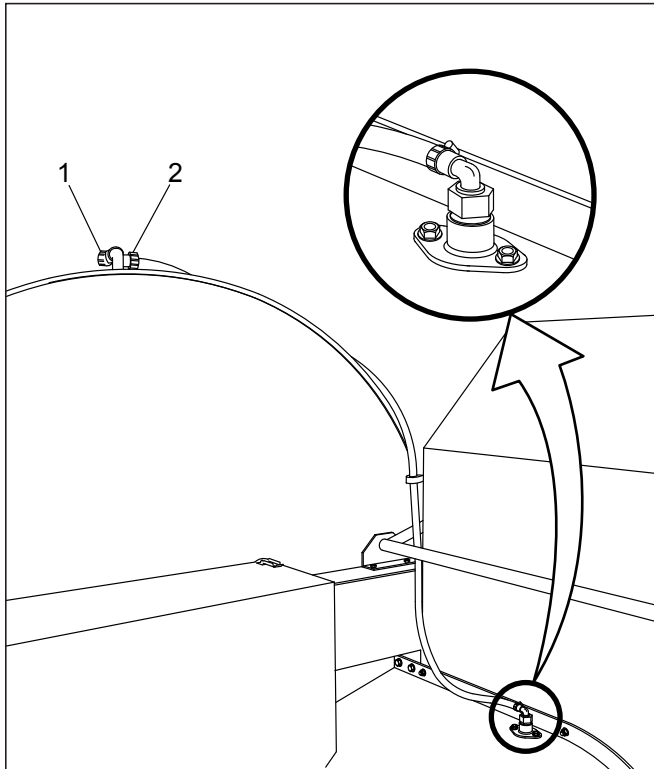


Figure 36 Water system

**NOTE :** Corn silage doesn't cause any gumming of inside lining, thus water is not required.

## SPEED REDUCER FIGURE 37 AND FIGURE 38

When a Forage Blower is equipped with a speed reducer (item 1) the tractor driveline output shaft should be 1000 RPM.

The blower fan in this case and the feeding screw turn respectively at 650 RPM and 600 RPM.

Periodically check the oil level (item 2) and the chain tension (refer to the ADJUSTMENTS / MAINTENANCE section).

**NOTE:** It is mandatory to use water with a 1/4" (6 mm) dia. inlet hole in the fan contour if Blower is equipped with a speed reducer.

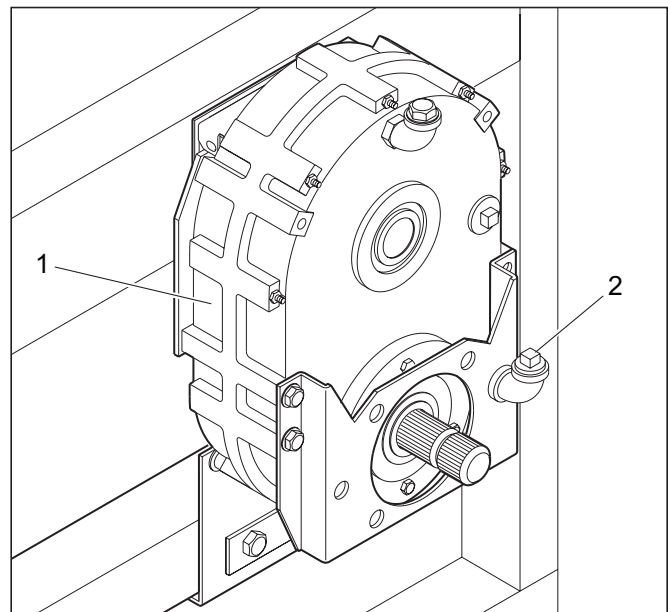


Figure 37 Speed reducer

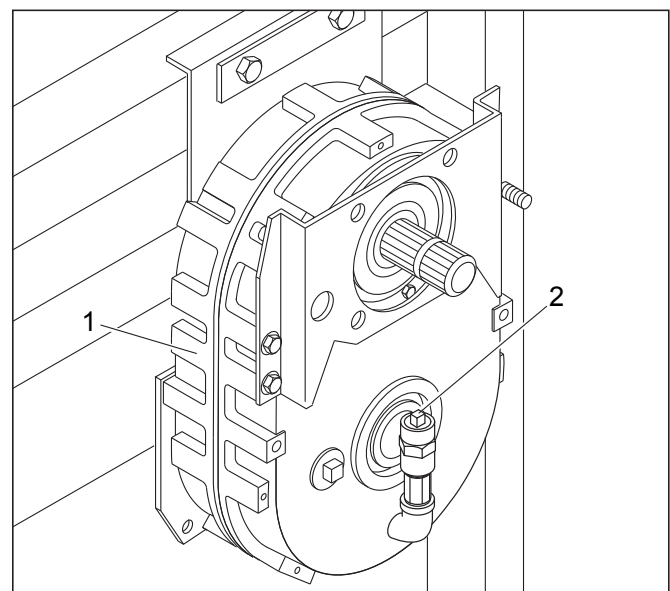


Figure 38 Inverted speed reducer

## HYDRAULIC WHEEL SYSTEM (OPTION) FIGURE 39

This option allows the operator to lift and lower the wheels from the tractor.



**DANGER:** When traveling on public roads, always close the safety valve (Item 1). The figure below shows a valve in the closed position.

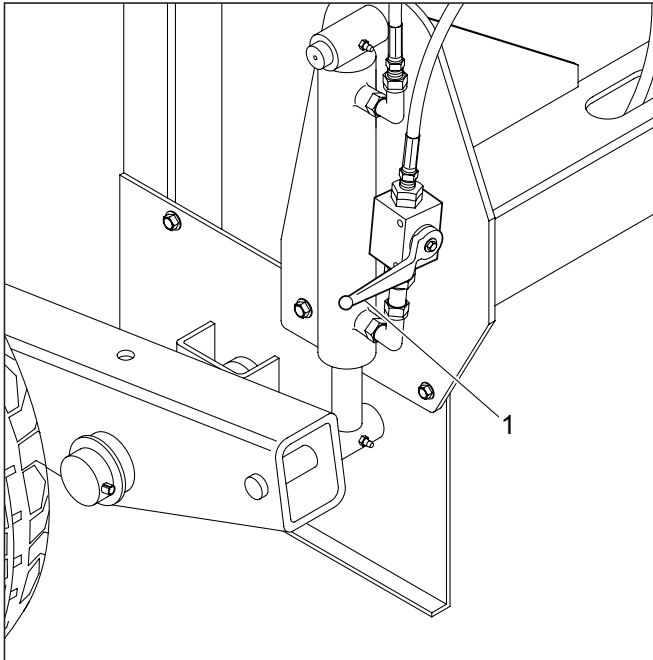


Figure 39 Safety valve on the hydraulic system

# LUBRICATION



**WARNING:** Never lubricate or clean any part while the machine and/or tractor engine is running.

**IMPORTANT!** Frequent lubrication and greasing in correct quantity will reduce the wear on components and could reduce the frequency of breakdowns.

## DRIVELINE

To prevent the telescopic shaft on the driveline from blocking, assemble both sections and grease the tubular shaft with about two ounces of grease (Figure 40).

Lubricate the driveline at the greasing points shown in Figure 41. Slide the cone in order to access the grease fittings. Refer to page 43 for the complete instructions on how to assemble and disassemble the driveline guard cones.

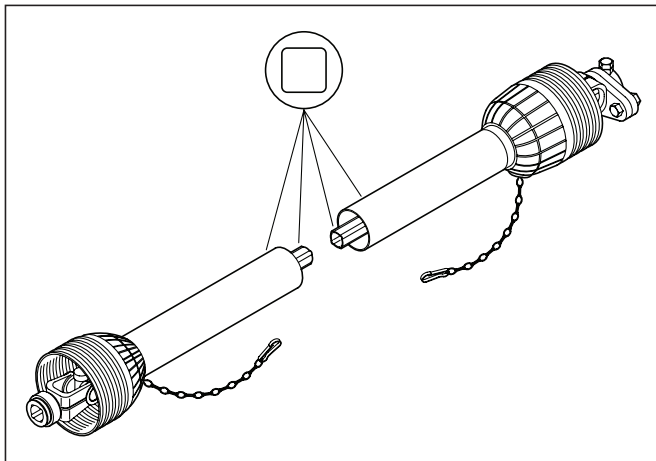


Figure 40 Lubrication points

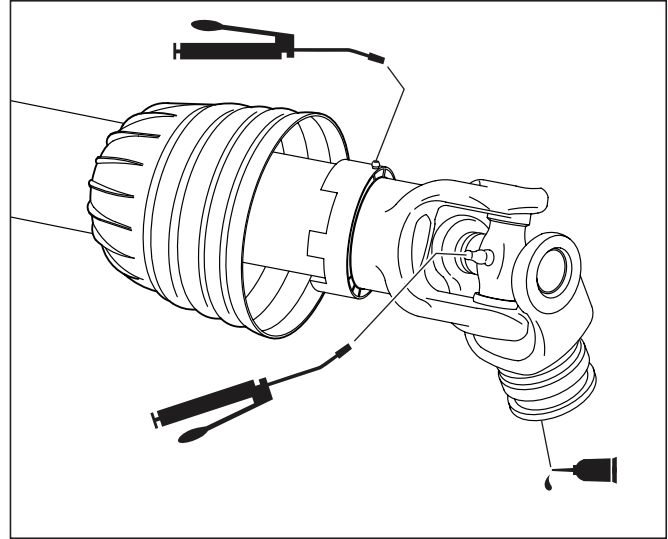


Figure 41 Lubrication points

## SPEED REDUCER

The speed reducer of the Forage Blower should be verified after ten hours of operation and then at the beginning of the season and afterwards, every 100 hours of operation.

It is recommended to use 80W90 (S5524952P /1 litre) oil in the speed reducer. Check to make sure that there are no oil leakages around the joints of the speed reducer. Oil should be changed if its color has changed or if there is foam indicating traces of water. Otherwise, change oil once a year.

## LUBRICATION CHART

These symbols indicate specific points which should be greased, oiled and verified.

SYMBOLS	DESCRIPTION	FREQUENCY
<b>Black on White</b> 	Grease - 14 points	Every 12 hours of operation
	Oil - 3 points	Every 12 hours of operation
	Filling plug	Change once a year or every 500 hours
	Transmission boxes drain plugs	

# LUBRICATION

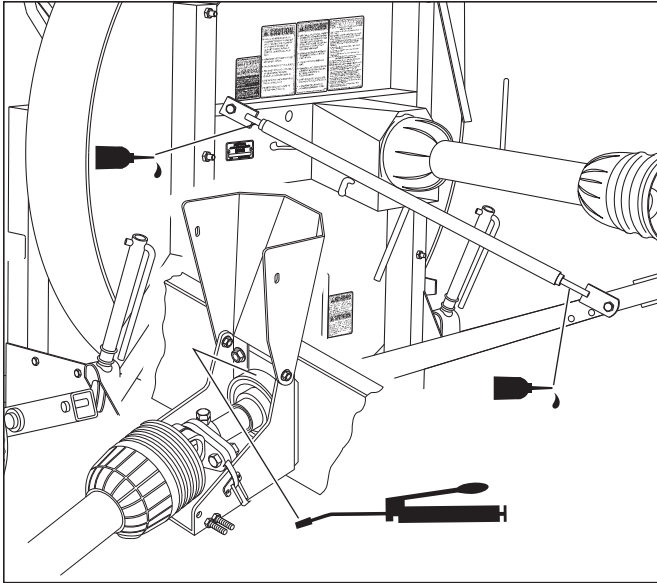


Figure 42 Lubrication points

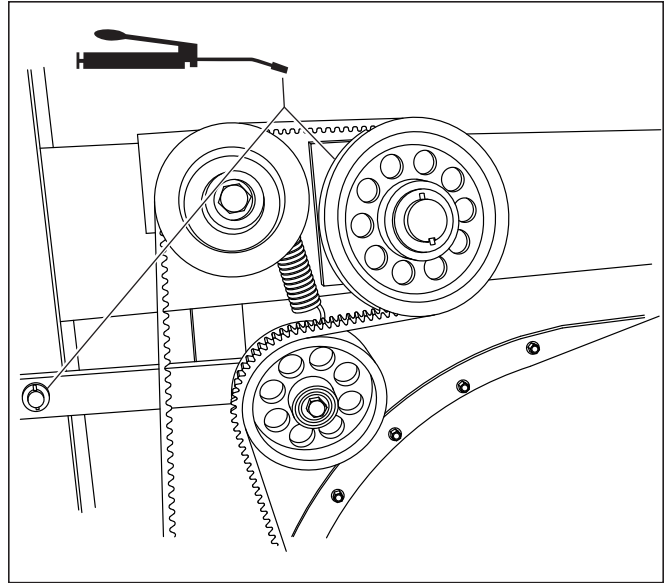


Figure 44 Lubrication points

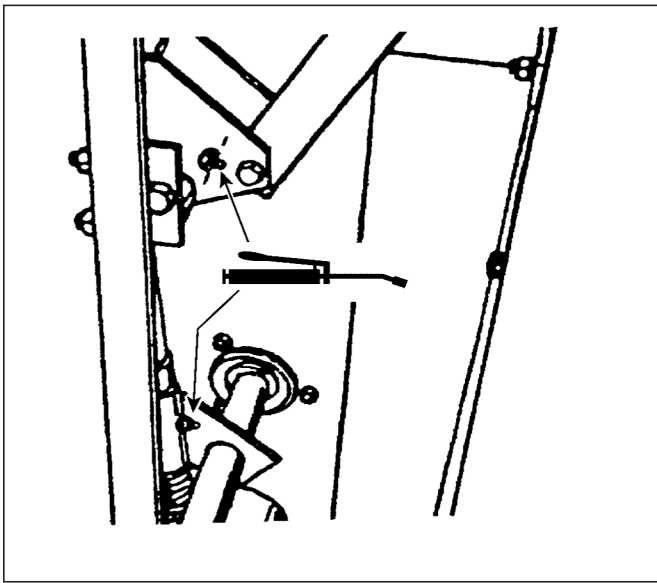


Figure 43 Lubrication points

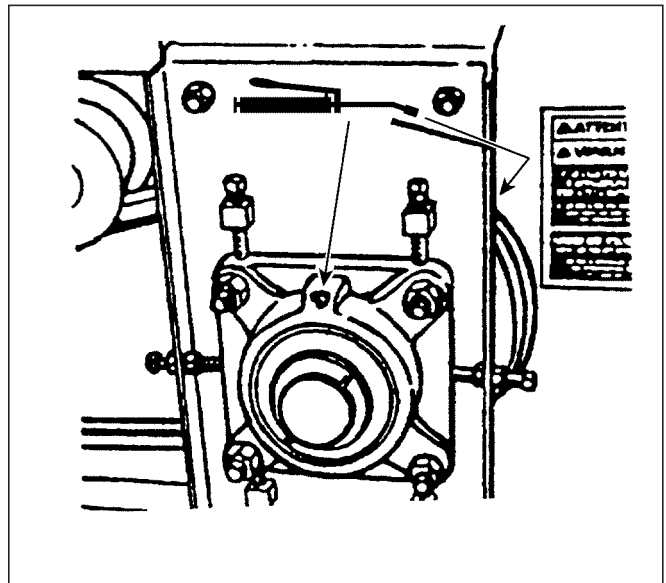


Figure 45 Lubrication points

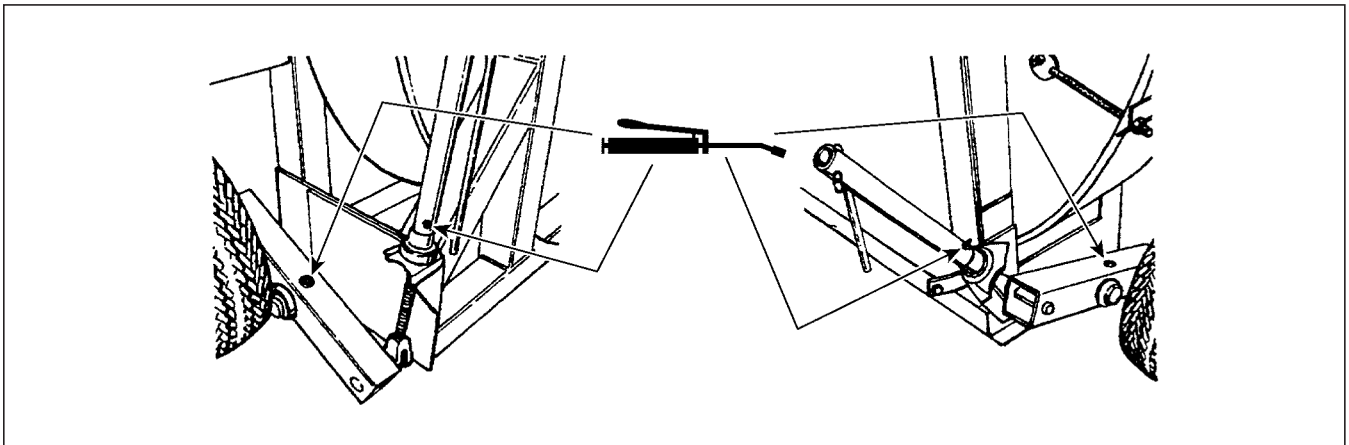


Figure 46 Lubrication points

# LUBRICATION

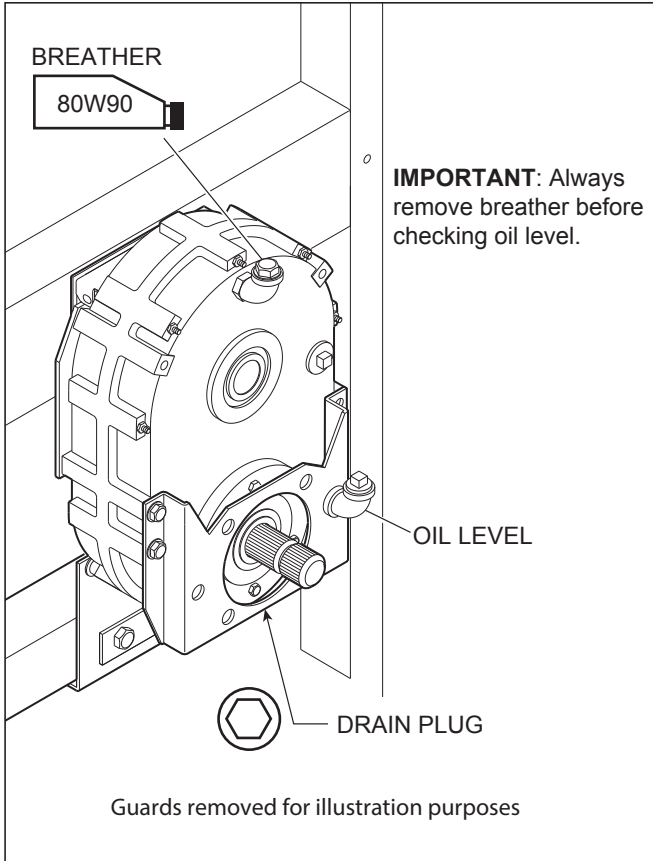


Figure 47 Gearbox lubrication

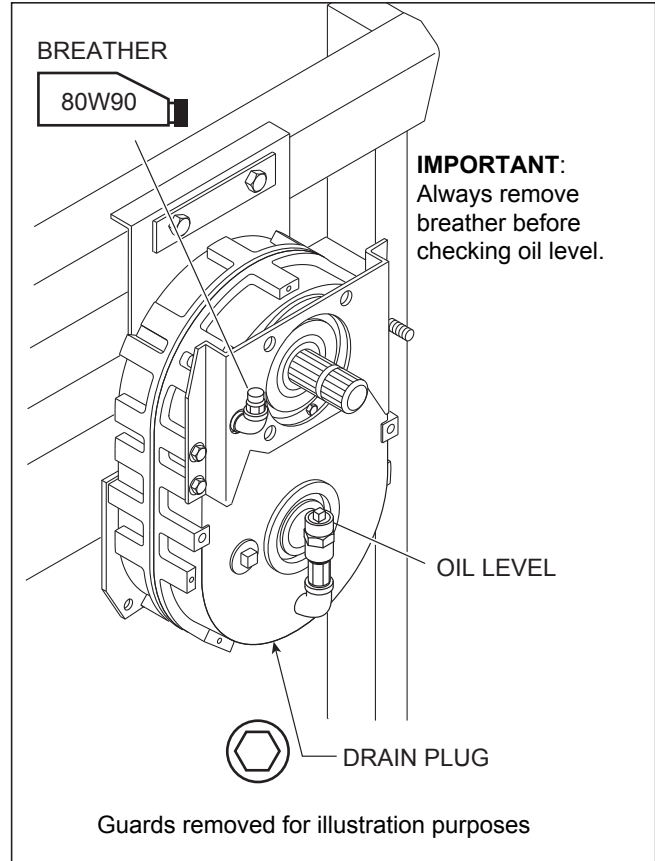


Figure 48 Inverted gearbox lubrication

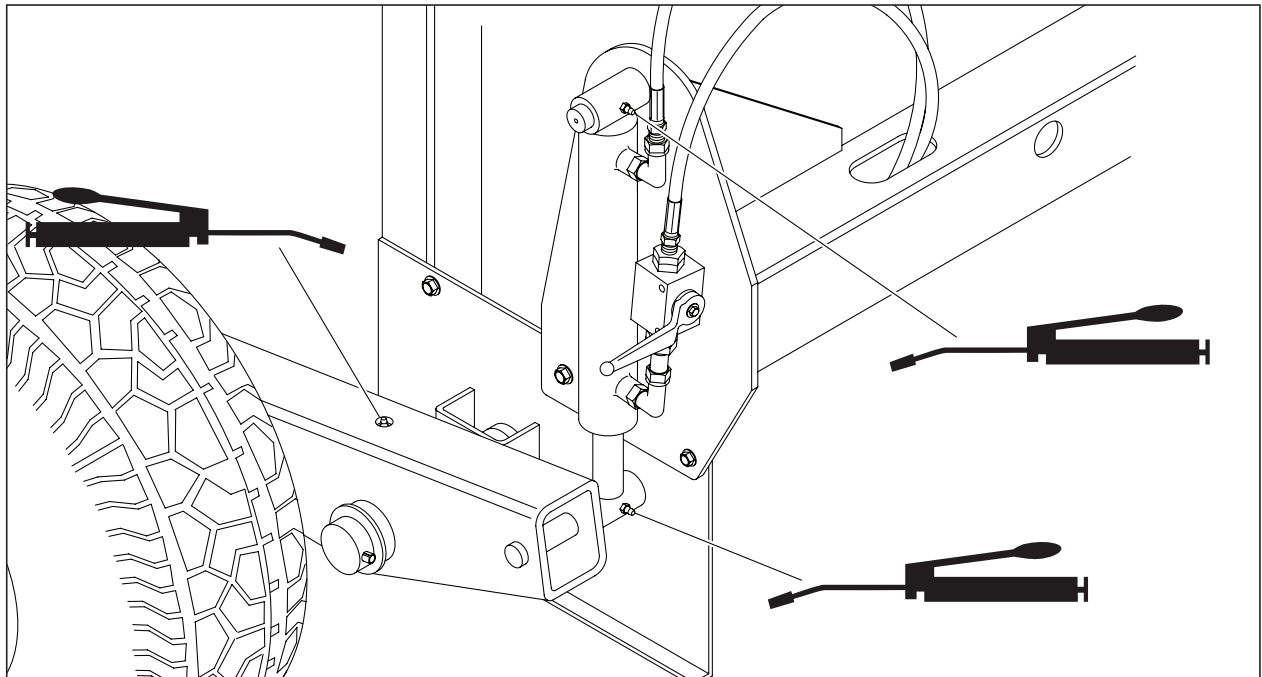


Figure 49 Lubrication points





**WARNING:** Never remove guards or make adjustments while the machine or tractor engine is running.



**WARNING:** Make sure all guards, shields, and doors are in place and properly secured before starting the tractor engine.



**WARNING:** Never park or work on a machine without first blocking the wheels, turning off the tractor engine, applying the parking brakes and removing the key.

## ROTATING OUTLET - FIGURE 50

When the Forage Blower outlet (item 1) is being tilted, make sure no forage has entered between the mobile contour (item 2) and the sides of the drum (item 3) before tightening the screw (item 4) to immobilize the outlet and the contour reinforcement nuts (item 6).

Keep the unloading pipes (item 5) in line with the drum outlet even if the pipes are in different positions.

**NOTE:** Tightening screws and nuts (item 6) should always be tight and in-line with the center of the Blower.

The Forage blower should be as close as possible to the silo so that the outlet and unloading pipes are as straight as possible and as parallel as possible to the silo. Figure 53 à la page 35 shows the good and the wrong way to install the unloading pipe.

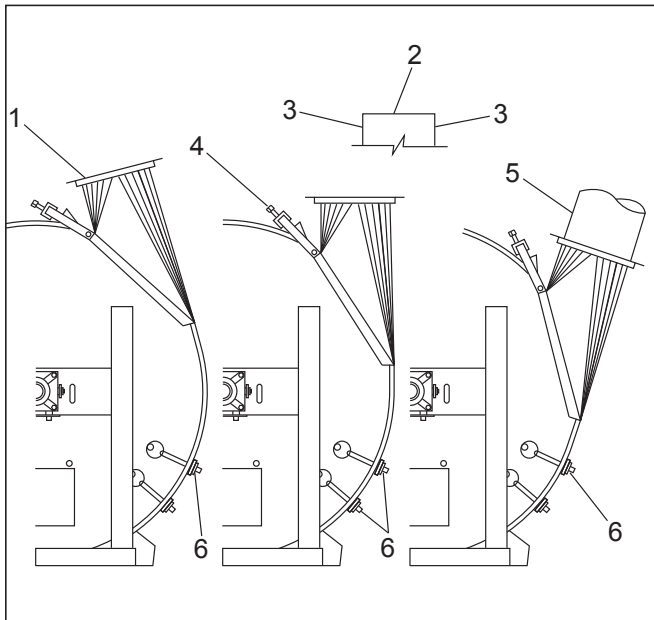


Figure 50 Rotating outlet

## FAN ADJUSTMENT - FIGURE 51



**CAUTION:** Always remove the driveline before adjusting the fan. This will allow the fan to turn freely.



**ATTENTION:** Handle the fan with great care as it has considerable inertia.

For maximum fan efficiency, position one blade horizontally on the outlet side. Allow a 1/8" (3 mm) gap between this blade and the drum contour (item 3), then a 0.035" to 0.040" (0.9 to 1 mm) gap between the second (following) blade and the drum bottom - vertically (item 4).

To adjust, loosen nuts (item 1) on both front and rear bearing housings then set with the screw (item 2) until required gaps are obtained. Tighten all nuts.

**NOTE:** Move both sides equally.

**NOTE:** When aligning the fan, keep the same space between blades and drum inner sides.

**NOTE:** For blowers equipped with a 1000 RPM reducer, the speed reducer must be aligned perpendicular to the fan shaft whenever the fan is adjusted (see page 44).

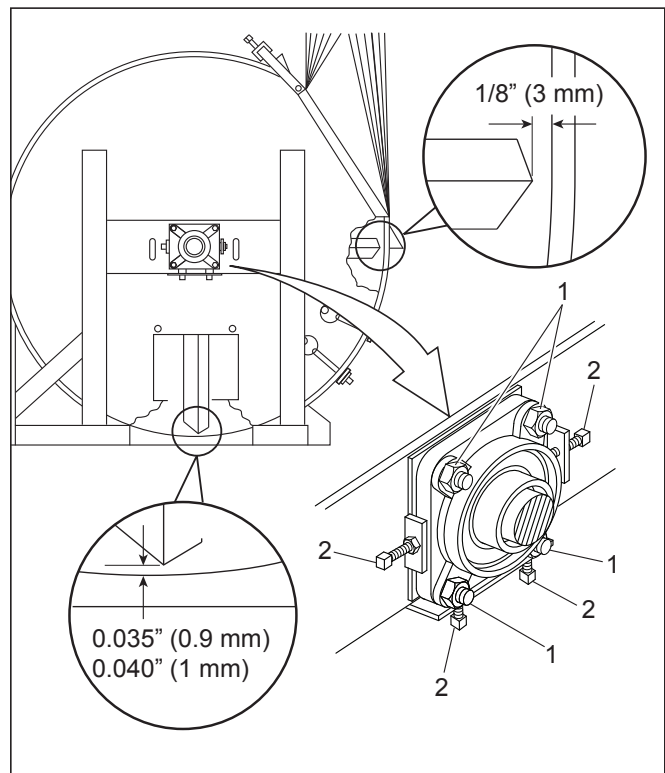


Figure 51 Fan adjustment

## SPOUT KNIFE ADJUSTMENT FIGURE 52 AND FIGURE 53



**CAUTION:** Always remove the driveline to allow the fan to turn freely.



**ATTENTION:** Handle the fan with great care as it has considerable inertia.

Whenever this adjustment is carried out on the fan or when the fan blades are replaced, it is important to adjust the distance between the blade tip (item 1) and the spout knife (item 2). The distance must be  $1/16''$  (1.6mm) as shown in Figure 32.

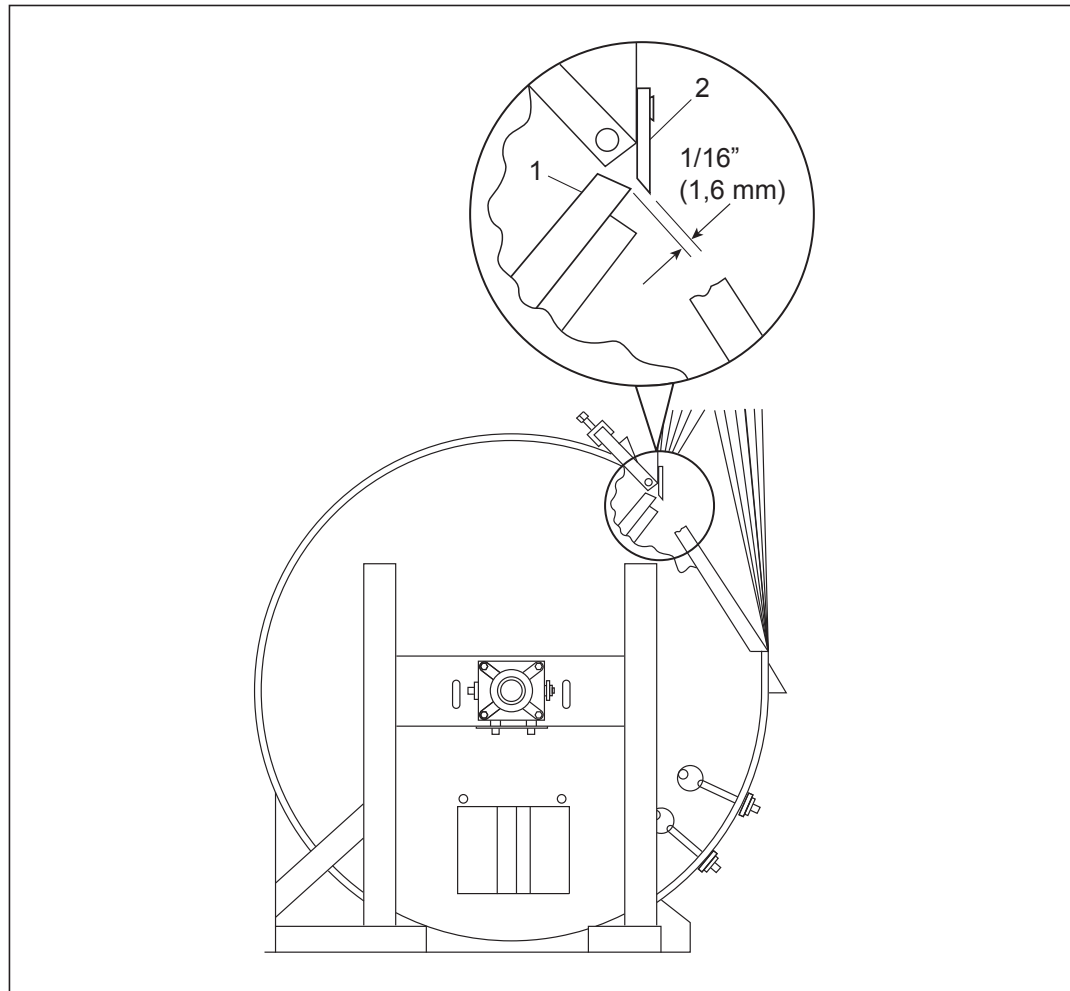


Figure 52 Spout knife adjustment

# ADJUSTMENTS & MAINTENANCE

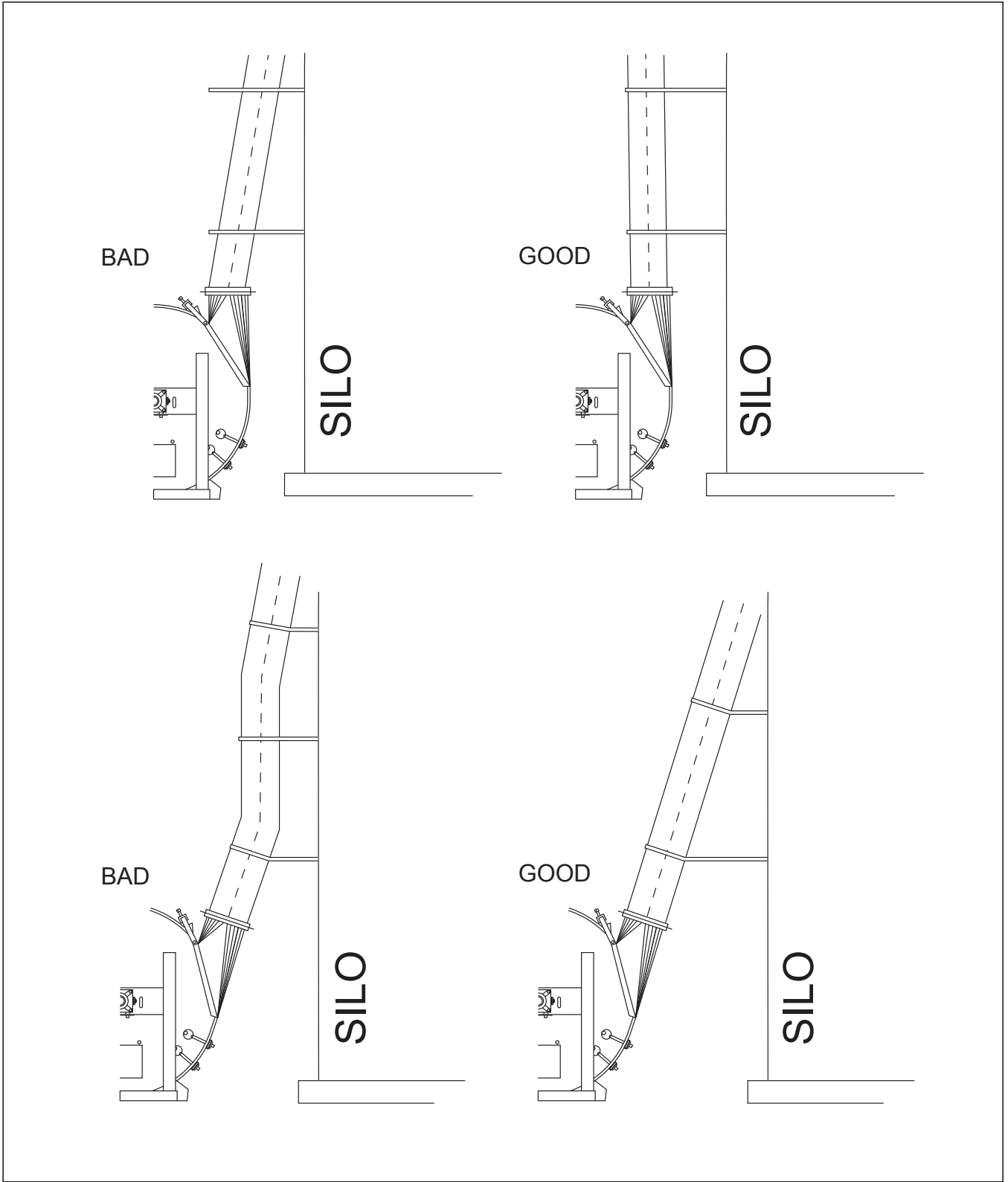


Figure 53 Rotating outlet and unloading pipe

## FAN BLADE REPLACEMENT

To replace the blades on the fan:

1. Remove the spout (item 1) but do not remove the tightening bars (item 2). These bars keep the drum contour tightly against both sides of the Blower.

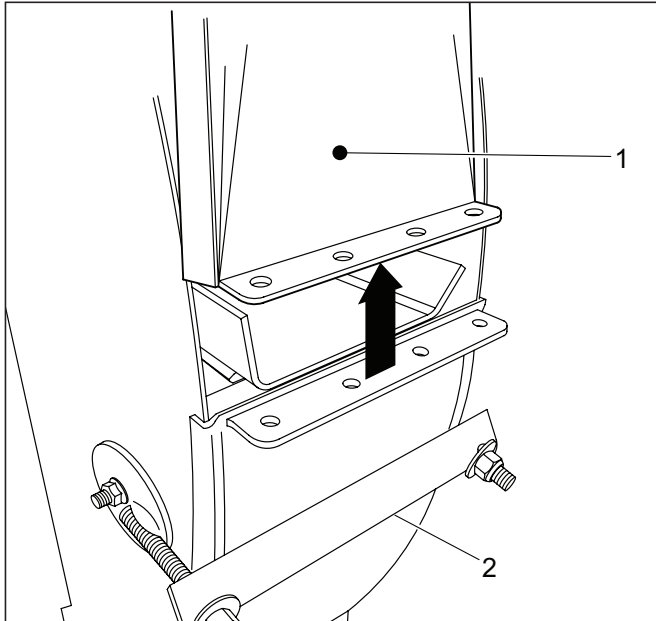


Figure 54

2. Replace each blade (item 3);

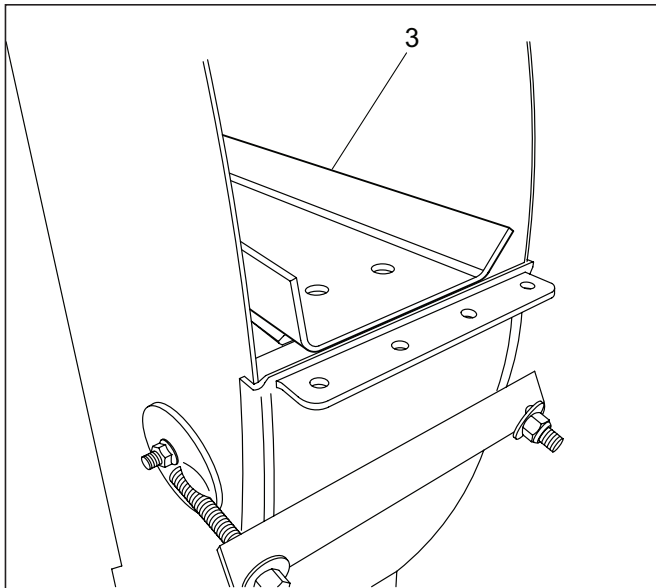


Figure 55

3. Use a 1/8" thick spacer (item 4) to adjust the blades. Insert the spacer between the blade and the drum contour as shown in figure 51, then tighten the blade in place. Tighten the bolts to a torque of 140 to 150 lbs/ft.
4. Put spout back in place while making sure to clean the slots on the contour (item 5), specially at the bottom of the Blower. Tighten the drum contour tightly once finished.

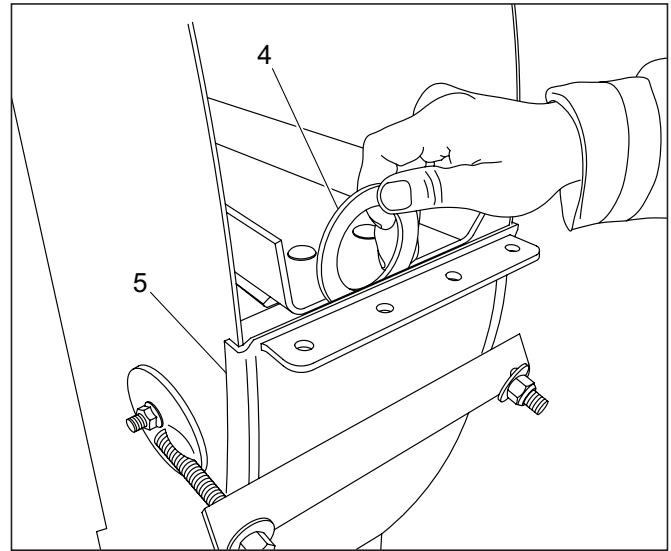


Figure 56

5. When everything is well tighten, check fan adjustment as shown in page 33.
6. Proceed with the balancing of the fan as described in the next section. Follow steps 6 and 7 carefully to put back together the fan shaft.

## INSTRUCTIONS FOR REASSEMBLING THE FAN SHAFT

Follow these instructions to properly reassemble the fan shaft. This procedure must be followed following the replacement of the shaft, the fan plate or the blade arms.

1. Adjust the shaft (item 1) following the dimensions shown in Figure 57. Make sure the taper key (item 2) is positioned on the shaft as shown in Figure 57. Insert the key as far as possible.

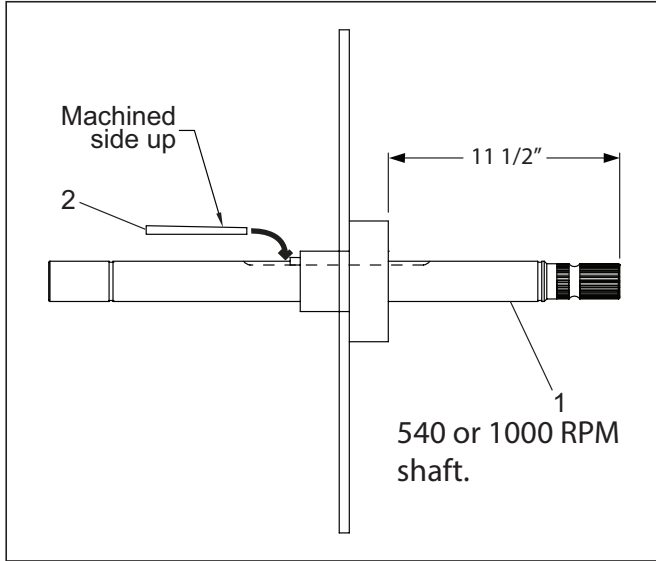


Figure 57

2. Install the blade arms (item 3) as well as the spacer (item 4) between the tip of the arm. Use three 3/4" X 2" lg. bolts, three 3/4" lock washers and three 3/4" nuts on each blade arm. Do not tighten at this time.

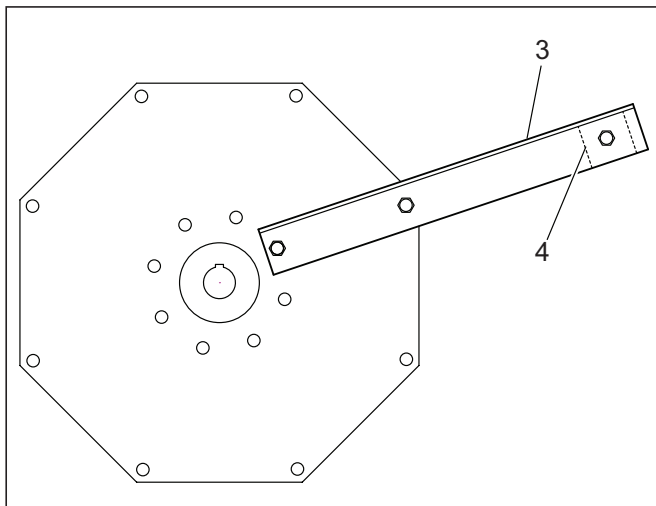


Figure 58

3. Install the blades (item 5). Use four 1/2" X 1 1/4" carriage bolts, two 1/2" X 1 1/2" plow bolts and six 1/2" castellated nuts.

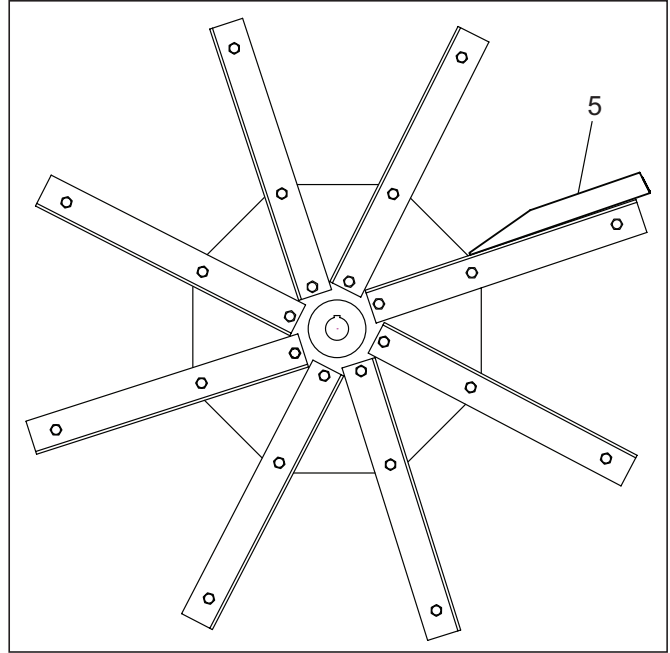


Figure 59

4. Once all the blades have been installed, tighten the bolts holding the arms (item 3 of Figure 58) to a torque of 300 lbs/ft. Bring each blade arm to a vertical position, head down, before tightening the bolts on an arm.
5. Adjust each blade so that the distance between the tip of the blade and the shaft is exactly 28 3/16", as shown below. Then, tighten all bolts to a torque of 140 to 150 lbs/ft. The margin of error for this adjustment is plus or minus 1/64".

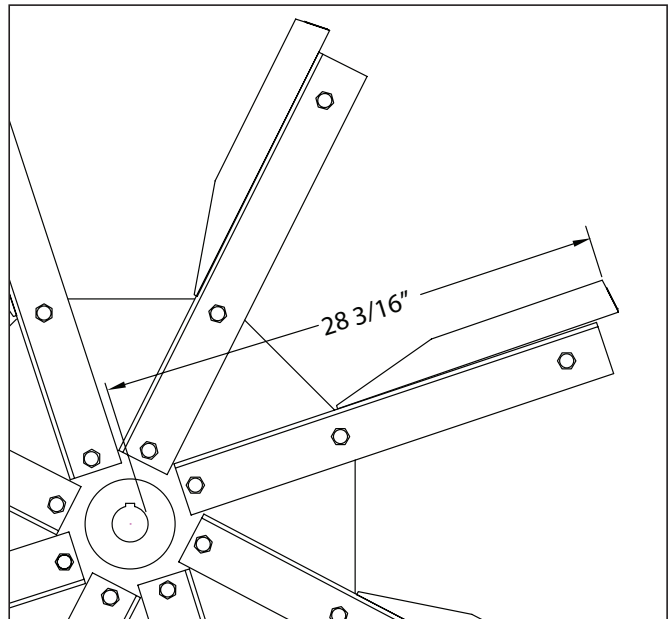


Figure 60

## ADJUSTMENTS & MAINTENANCE

- When assembling of the fan shaft is completed, statically balance the fan in order to eliminate any rotational movement. The bolts on each blade are longer than necessary in order to allow you to add bolts and washers to balance the fan.
- Position a blade horizontally. When it is let go, the blade should not move neither up or down. If it moves downwards, add nuts and/or washers to the opposite blade. If it move upwards, add nuts and/or washers to this blade. Adjust each blade the same way.

**NOTE:** Before balancing the fan, make sure to remove the drive shaft, speed reducer and belts driving the auger's intermediate shaft.

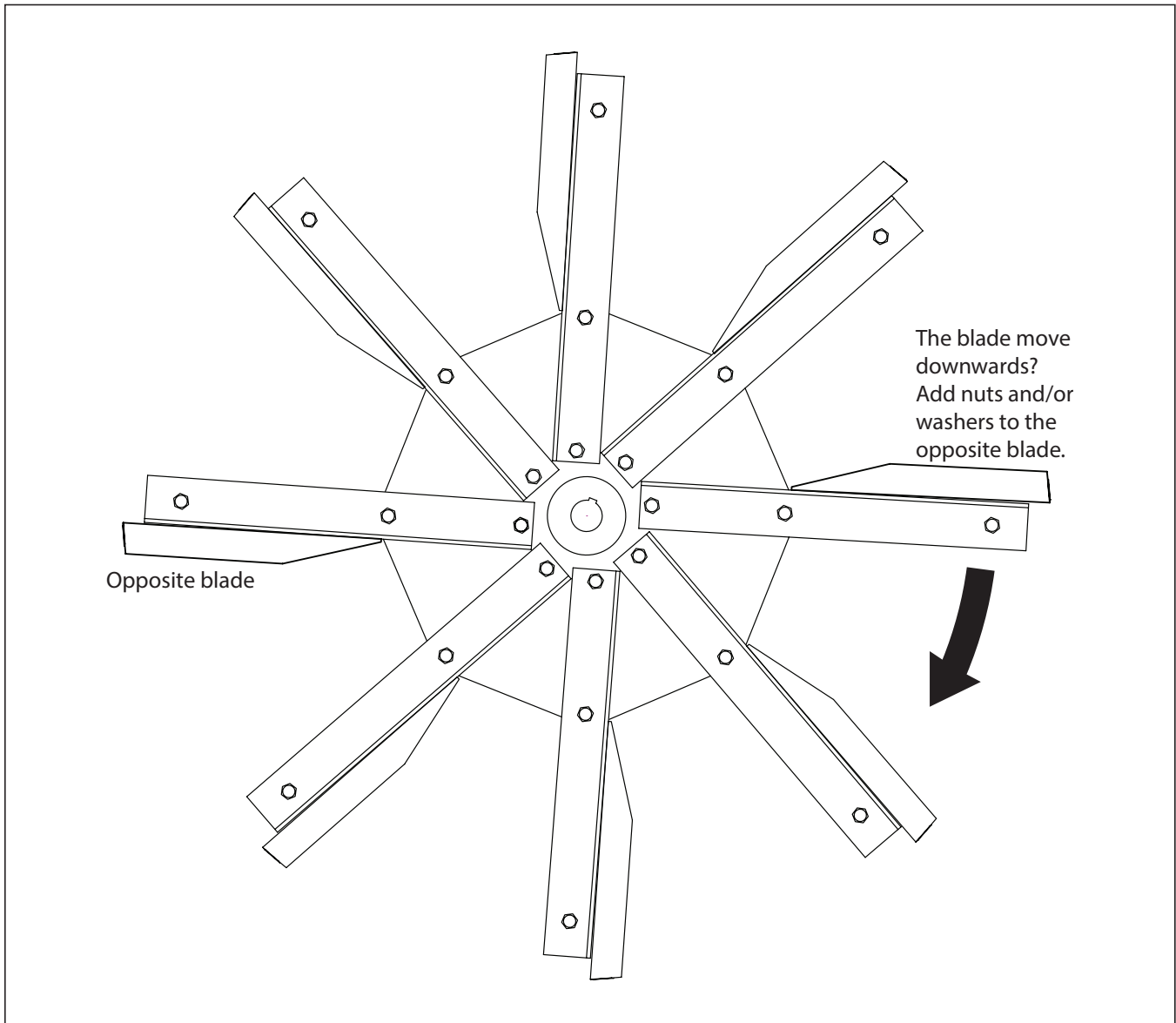


Figure 61 Example of a blade adjustment

## DRIVELINE SHEAR BOLTS - FIGURE 62

This shear bolt (item 1) protects the whole mechanism in the event of any overloading due to jamming or obstruction.

**NOTE:** If the Blower is coupled to a tractor running at 540 RPM, always use the genuine metric bolt and nut 100 HP and more: #S5520751P.

If the Blower is equipped with a speed reducer, use bolt and nut #S5522973P.

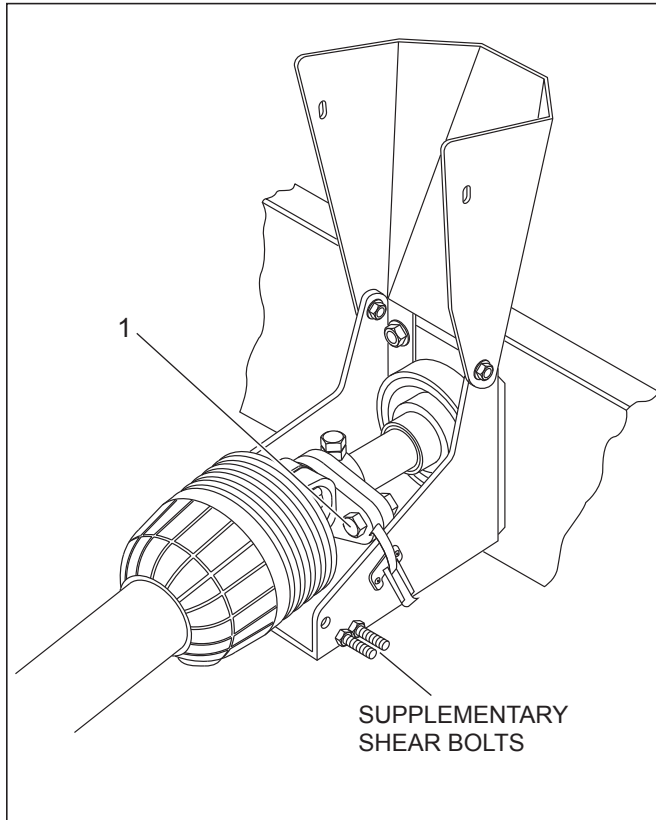


Figure 62 Driveline Shear bolts

## AUGER ADJUSTMENT FIGURE 63 AND FIGURE 64

The auger (item 1) should be adjusted so that clearance (B) at approximately 42" to 43" (106 to 110 cm) is 1/4" (6 mm) bigger than clearance (A) near the auger bearing (item 4 in Figure 63), as shown in Figure 64. This clearance must be obtained in two places: between the auger and the bottom of the bottom (item 2) and also between the auger and the side (item 3).

First measure the clearance (A) near the bearing. Then, add 1/4" (6 mm) to this measurement to obtain clearance (B) required.

To adjust, loosen nuts (item 5) and adjust with screws (item 6). Tighten all hardware.

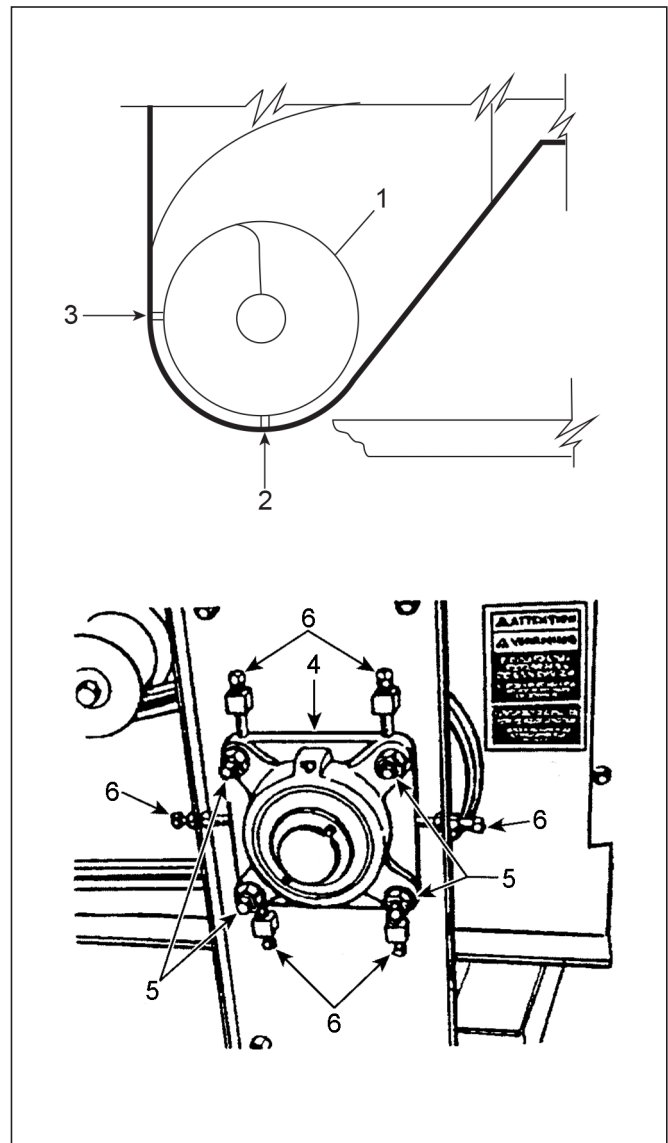


Figure 63 Feeding auger adjustment

# ADJUSTMENTS & MAINTENANCE

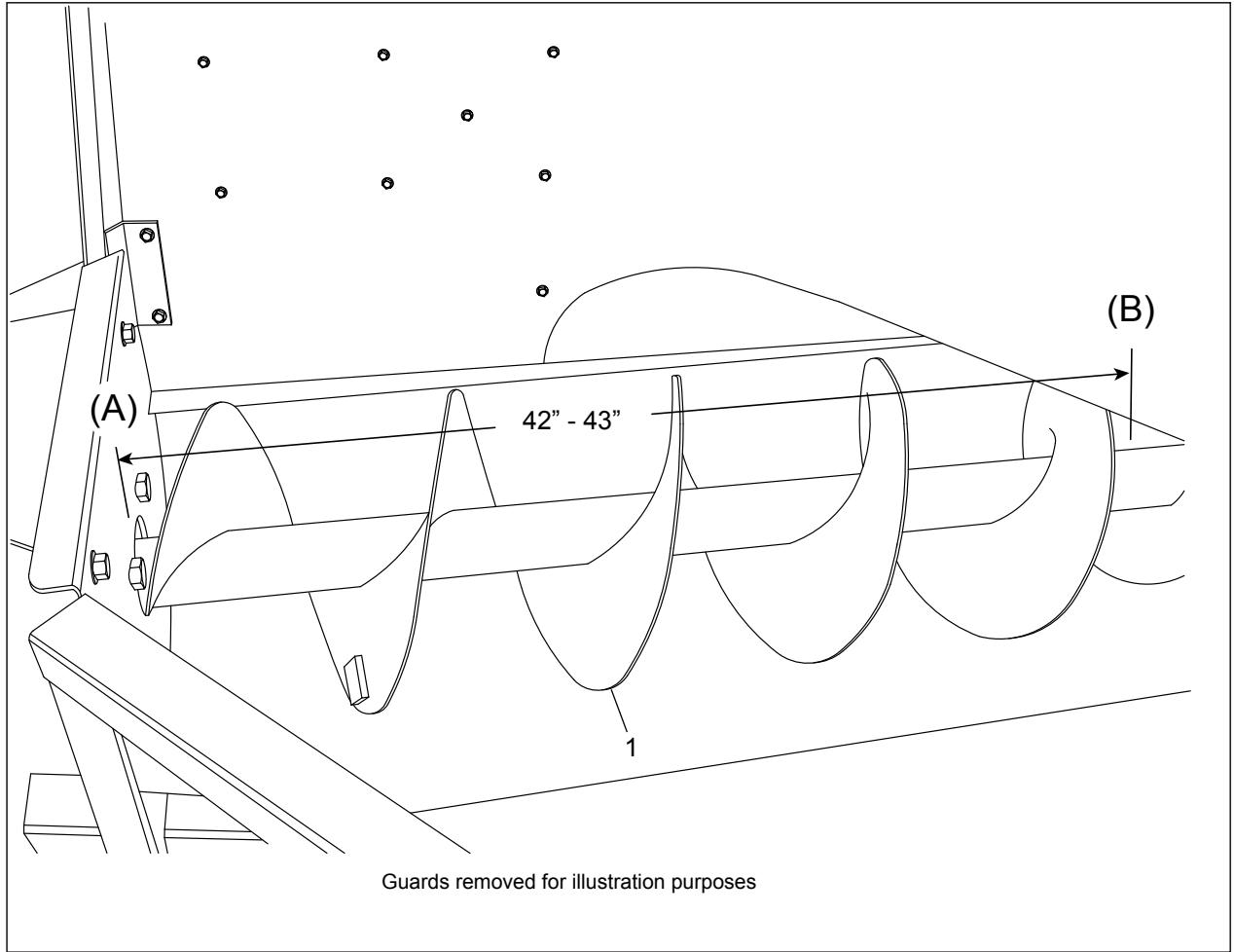


Figure 64



## AUGER INTERMEDIATE BELT TENSION FIGURE 65

Adjust the intermediate belt (item 1) tension by turning the adjusting nut (item 2) of the tightener (item 3).

To make sure the spring (item 4) is sufficiently tightened, leave a 1/16" to 3/32" (1.5 to 3.4 mm) gap between the spring spirals.

Next, adjust the stop bolt (item 5) by loosening the nut (item 6) so that a 1/8" (3 mm) gap is obtained between the bottom of the tightening arm and the stop bolt. Re-tighten the nut.

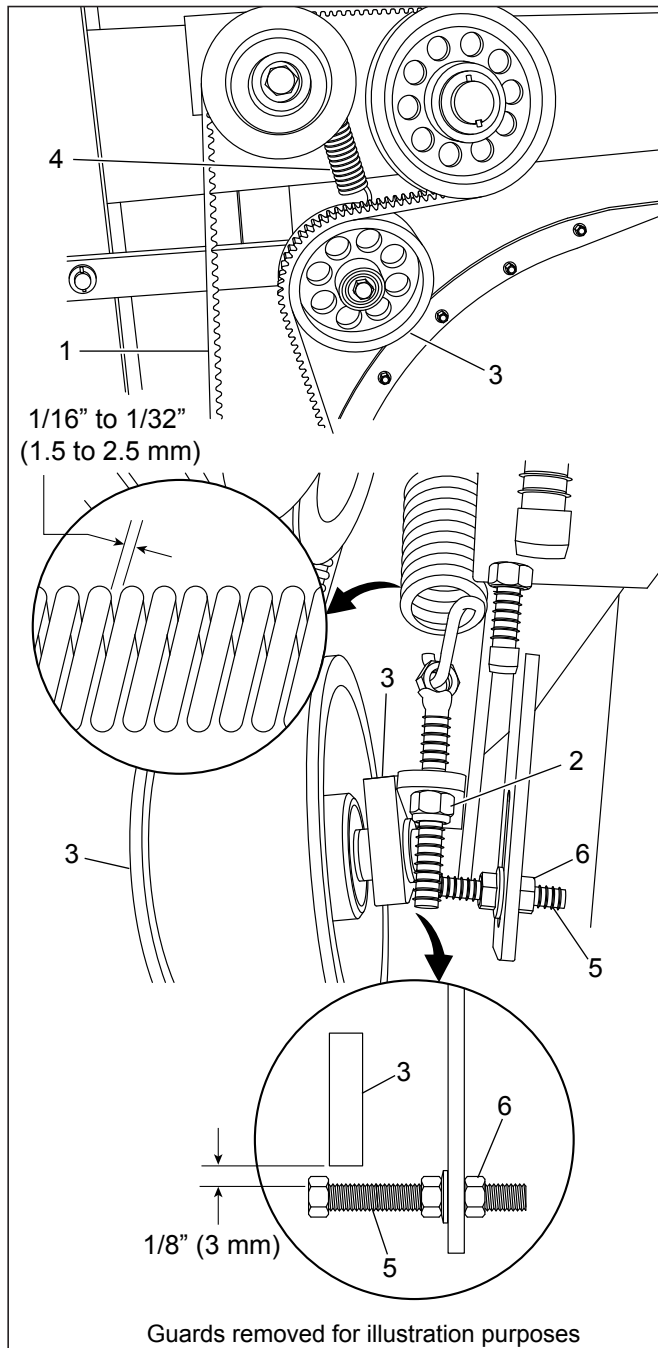


Figure 65 Auger intermediate belt tension

## AUGER DRIVE BELT TENSION - FIGURE 66

Set the clutch control arm (item 1) to the ON position.

Adjust the tightener (item 6) tension on the auger drive belts (item 3) with the tension spring (item 2) nuts (item 4) to obtain a normal tension. Leave a 1/32" (0.8 mm) gap between the spring spirals.

The locking nuts (item 5) should be adjusted to leave a 1/4" (6.4 mm) gap as shown in the illustration. The clutch control arm (item 1) should be in the ON position.

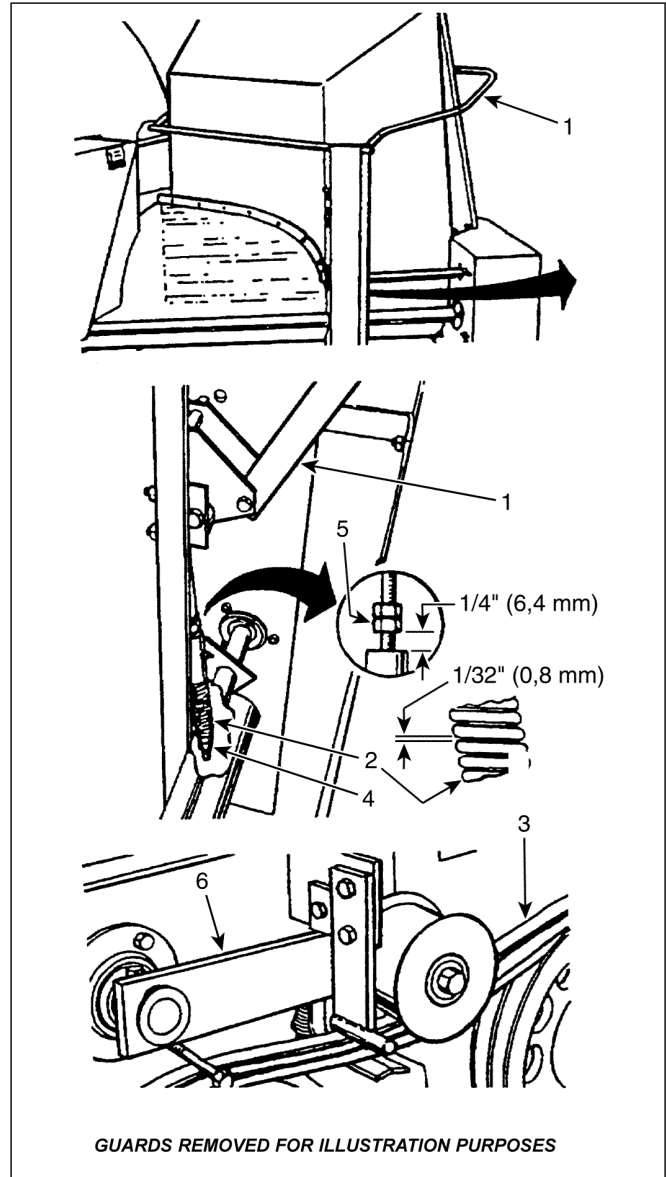


Figure 66 Auger drive belt tension

## AUGER BELT REPLACEMENT FIGURE 67 AND FIGURE 68

To replace the auger belts, remove the six bolts (item 1), rotate the bearing support plate (item 2) then remove the belts (item 3). It could be difficult to rotate the bearing support plate so use a rubber hammer to loosen the bearing support plate and facilitate the procedure. Replace the belts and rotate the bearing support plate back in place. Check the auger adjustment.

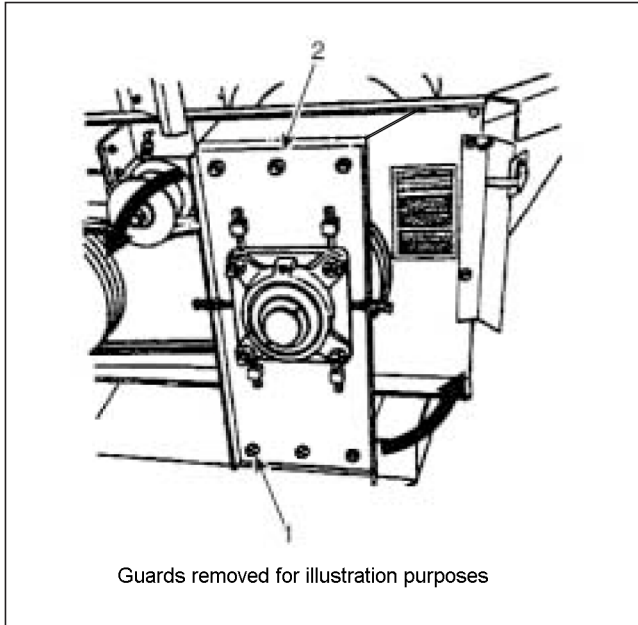


Figure 67 Rotate plate to remove belts

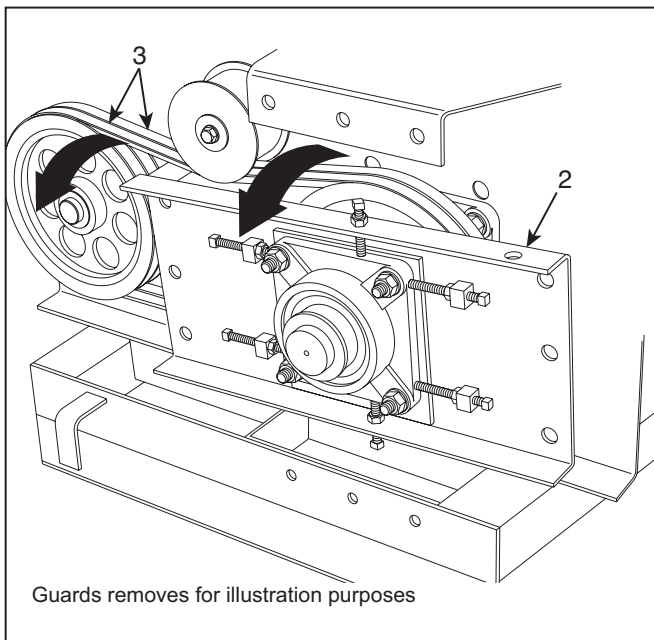


Figure 68 Remove belts

## AUGER BRAKE - FIGURE 69

Set the clutch control arm to the STOP position.

Using the nuts (item 3) adjust the height of the braking plate (item 2) so that the plate will exercise sufficient pressure onto the belt (item 1) to stop the auger from rotating when the Forage Blower is running after setting the clutch control arm to the STOP position.

**! WARNING: Guards should be closed when the auger brake is being tested.**

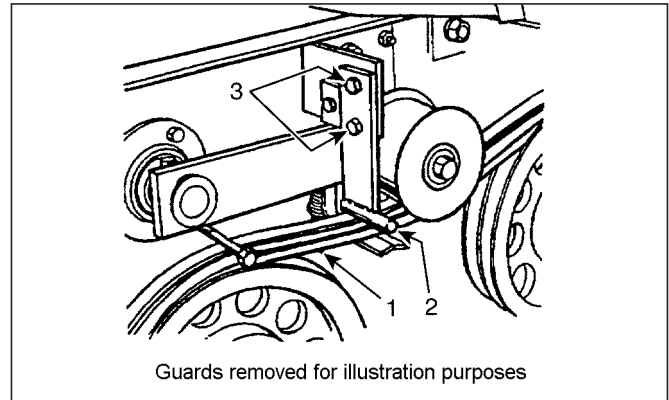


Figure 69 Auger screw brake

## AIR INTAKE CONTROL - FIGURE 70

The air intake factory setting is done by opening the valve (item 1) approximately 3/4" and by completely closing valve (item 2), which is the general setting for the majority of operating conditions. When required, it is recommended to open valve (item 1) completely (approx. 2") before opening valve (item 2).

To adjust the fan air intake, turn the handles (items 1 and/or 2) located at front of the Blower. If discharge becomes clogged, increase air intake; if there is too much air back flow at the auger level, decrease air intake.

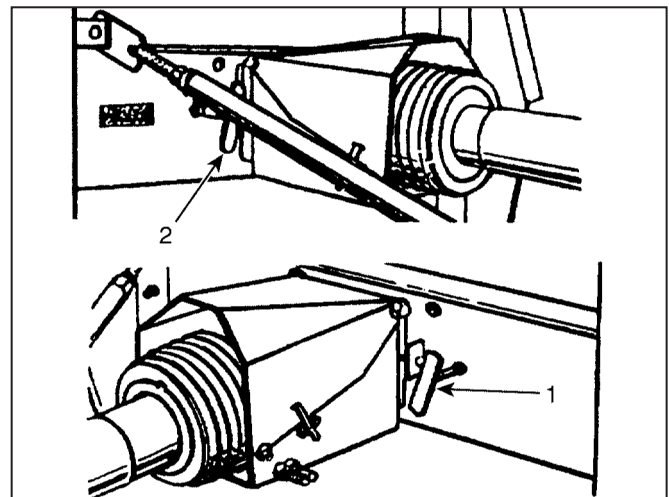


Figure 70 Air intake control

## SUGGESTED INITIAL AIR INTAKE ADJUSTMENTS

TRACTOR HP	SILO HEIGHT	AIR INTAKE ADJUSTMENTS
70-90	50' - 70' 12M - 21M	close air traps 1 and 2
90-120	60' - 90' (18m - 27m)	open air trap 1 1/2" to 3/4" (13 to 19 mm)
160 - 200 (with speed reducer only)	70' - 100' (21m - 30m)	open air trap 1 1 1/4" (32mm)

**NOTE:** When operating, it is recommended to maintain tractor engine at **FULL SPEED**: driveline must turn between 540 RPM (minimum) and 630 RPM (maximum) or between 1000 RPM (minimum) and 1050 RPM (maximum) if Blower is equipped with a (1000-650) Speed Reducer.

## DISMANTLING AND REASSEMBLY OF DRIVELINE ROTATING GUARDS FIGURE 71 AND FIGURE 72

1. Release both locks with two flat screwdrivers, on each side of the guard to free the cone.

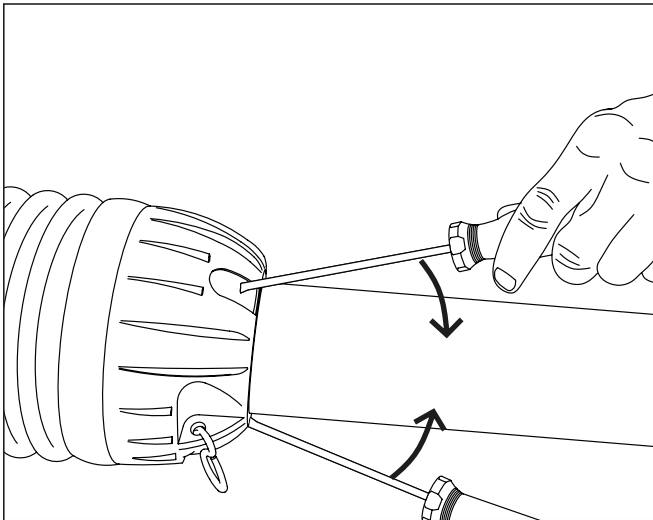


Figure 71 Releasing the locks

2. Slide each cone as shown in Figure 72.

When guards are reassembled, make sure all bolts, locks and pins are in place and securely tightened.

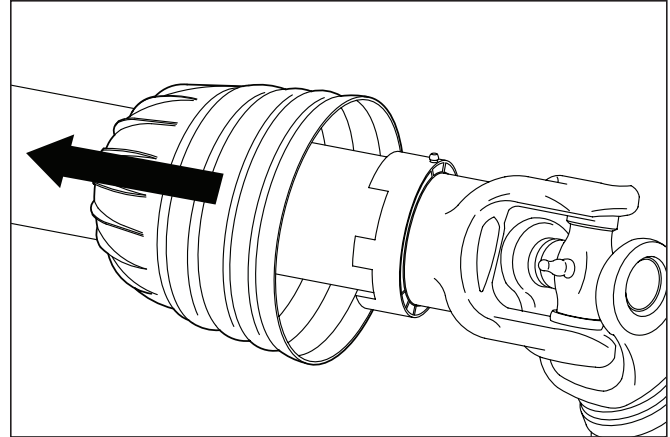


Figure 72 Dismantling the rotating guard

## ECCENTRIC LOCKING COLLAR INSTALLATION - FIGURE 73

It is necessary to assemble lock collars correctly. Press collar (item 1) lightly against bearing inner ring (item 2) then turn it in the direction of the shaft rotation (item 3) until engaged. With drift pin (item 4) in collar hole, tap gently in direction of shaft rotation and, after seating it tightly, tighten socket head screw (item 5).

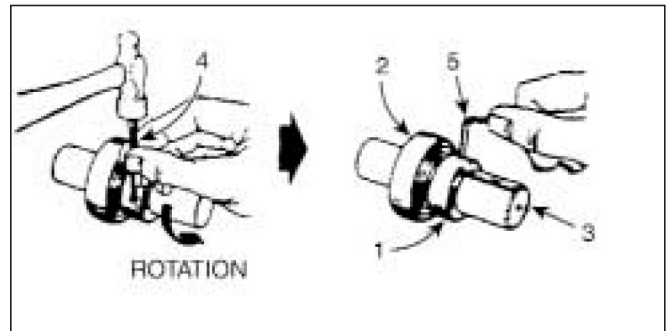


Figure 73 Eccentric locking collar installation

## REMINDER:

The most important maintenance operations which should be performed on the Forage Blower are the following: the fan adjustment and the feeding auger driving belts adjustment.

The condition of the fan blades should be checked periodically for wear by measuring the gap between the tip of the blade and the contour. Refer to fan adjustment on page 33.

Regular maintenance always assures much more efficiency and greatly lengthens the life of a machine.



**WARNING:** The driveline shields should be inspected on a regular basis.

## SPEED REDUCER

### FIGURE 74 AND FIGURE 75

The speed reducer of the Forage Blower allows the operator to use tractors equipped with a 1000 RPM driveline.



**WARNING:** Do not remove any guards or make adjustments while the machine and/or tractor engine is running.

## CHAIN TENSION CHECK

The chain tension should be checked after the first ten hours (approximately) of operation. Afterwards, checks should be done every 100 hours of operation.

To check the tension of the chains (item 6) between both input and output reducer shafts, turn the input shaft clockwise and counterclockwise (item 1) with the output shaft (item 2) secure from rotation. The chain should be adjusted if the play ranges from 10 to 15 degrees.

## CHAIN TENSION ADJUSTMENT

To adjust the reducer chains (item 3), proceed as per the following instructions:

1. Lower the Forage Blower to the ground (page 25).
2. Uncouple the driveline (item 4) and remove the guards (item 5).
3. Unscrew the twelve bolts (item 7) (6 bolts on each side) of the covers (item 8) on the input shaft (item 1).

**NOTE:** The covers (item 8) are eccentric thus allowing to tighten the chains (item 6) when turning.

4. With the help of an hammer and screwdriver, slowly turn both covers (item 8) in the same direction until reaching the next cover hole (on both sides) with the housing threaded holes.

**NOTE:** It is a must to turn the covers in the same direction and with the same number of holes. If this procedure is not followed, the input and output shafts will no longer be parallel and serious damages could be caused to the reducer.

5. Check the chain play again as already described. If the play is too high repeat step #4. If the play is satisfactory install the guards and driveline back in place. Check oil level before starting blower.
6. Check the oil level (item 9) and if necessary add some oil (item 10) to reach the proper level.

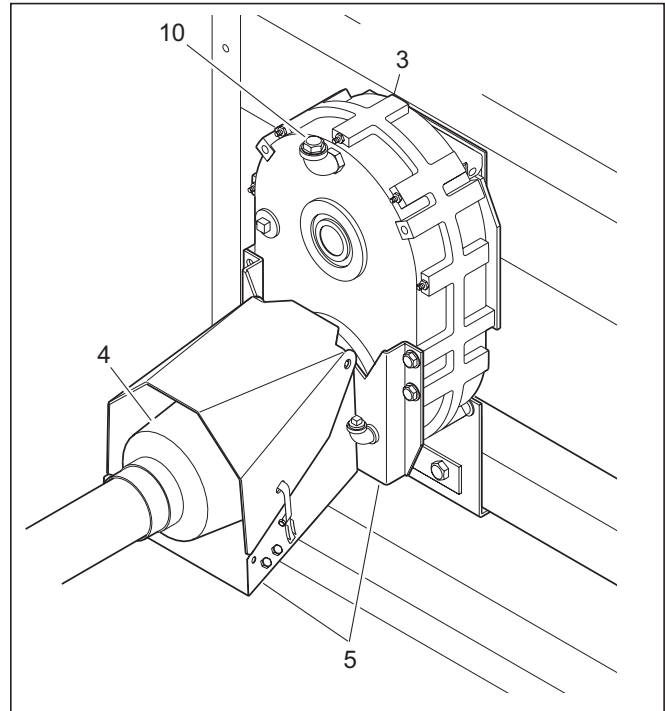


Figure 74 Speed reducer

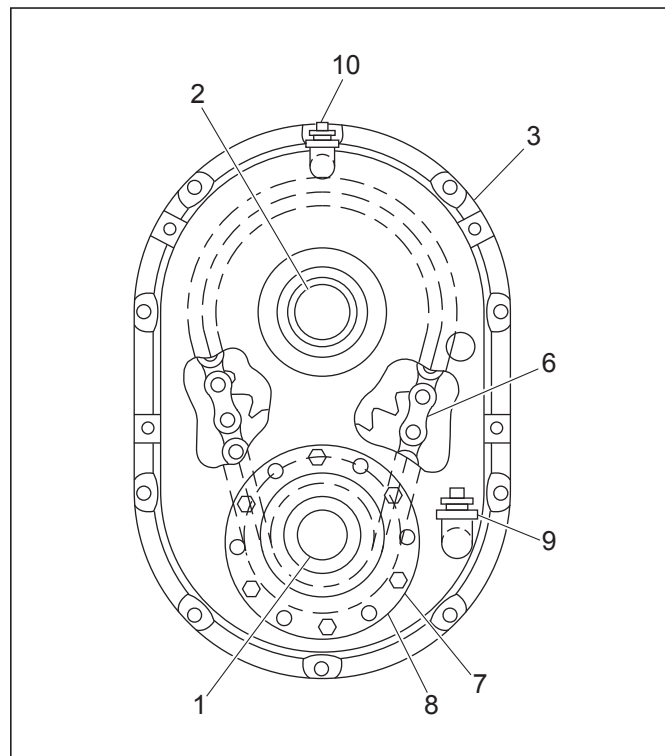


Figure 75 Speed reducer

## ALIGNMENT AND ADJUSTMENT OF THE SPEED REDUCER - FIGURE 76



**CAUTION:** The speed reducer is inserted on the blower shaft (3" (76 mm) deep). The shaft is holding the entire speed reducer weight. If you want to remove the speed reducer, you will need a lifting device to lift it.

**NOTE:** Each time the blower fan must be adjusted, the speed reducer must be realigned to be perpendicular to the fan shaft.

To align the speed reducer follow carefully the following instructions:

1. Remove the driveline (item 1).
2. Remove the guard (item 15)
3. Unscrew the four nuts (item 3) of the support (item 4) of the speed reducer (item 5).
4. Unscrew the two bolts (item 6) and remove the flat bar (item 7) of the lower support (item 8).
5. Slide the speed reducer (item 5) back on the fan (item 9) by pulling it slowly until the flange bearing bolts (item 10) are free.
6. Check if the fan adjustment is correct (see Figure 45 on page 29).
7. Slide the speed reducer on the fan shaft by pushing it slightly against the flange bearing nuts. Check spacings between the speed reducer support (item 4) and the flange bearing nuts (item 13). Install the spacing washers (item 12) as required.
8. If necessary repeat steps 5 and 7 until the speed reducer is resting perfectly on the four flange bearing nuts without spacings. Put back the four nuts (item 3).
9. Reinstall the flat bar (item 7) and bolts (item 6). Check for zero clearance between item 8 and item 16. Adjustment is made by adding or removing washers between the support (item 8) and the speed reducer. Tighten well all nuts.
10. Put driveline (item 1) and guard (item 2) back in place.

**NOTE:** This adjustment is very important to avoid fan shaft bending which could lead to shaft shearing.

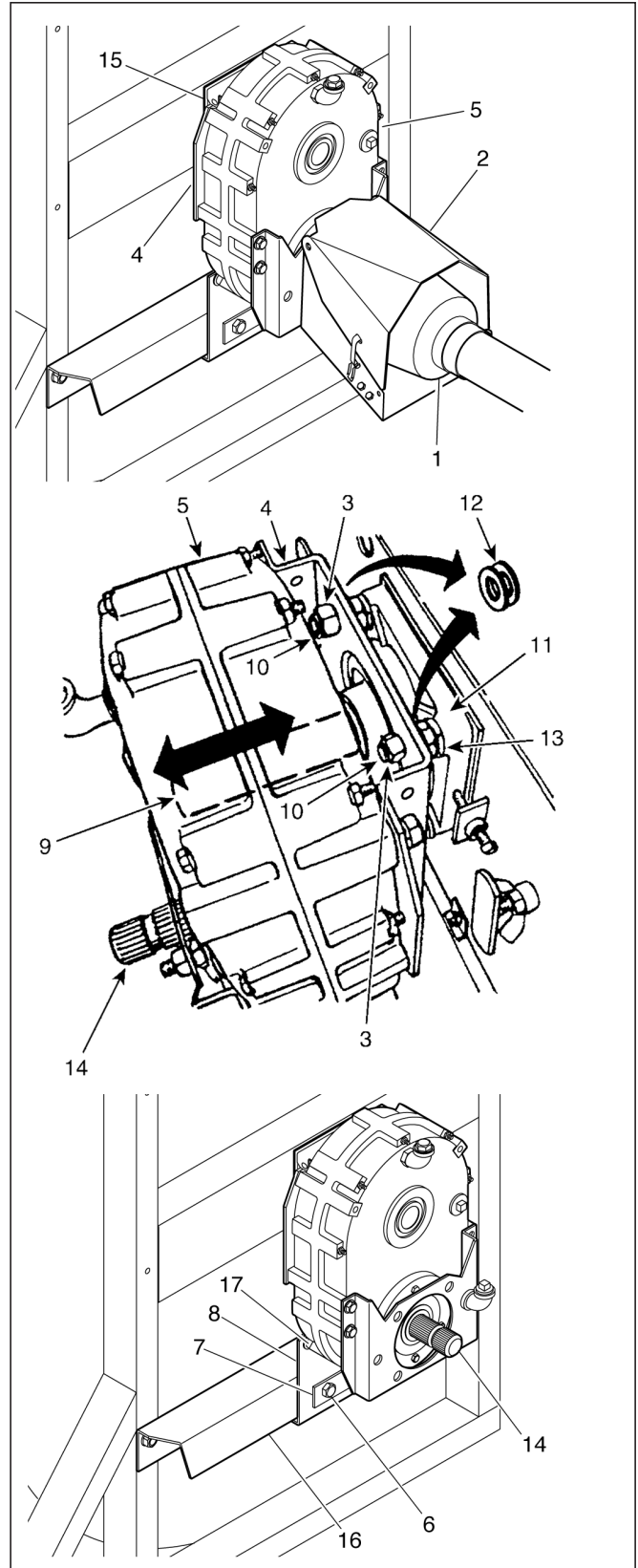


Figure 76 Alignment and adjustment of the speed reducer

## ASSEMBLING THE WHEEL HUBS

Once a year, disassemble the wheel hubs for thorough cleaning and lubrication.

To assemble back a hub:

1. Fit the lubricated hub onto the axle.
2. Install a castellated nut. Tighten until it is no more possible to turn the hub by hand, then back the nut off one notch on the cotter pin hole.
3. Insert the cotter pin.
4. It should be possible to turn the hub by hand, This confirms the proper adjustment of the bearings.
5. Install the dust cap

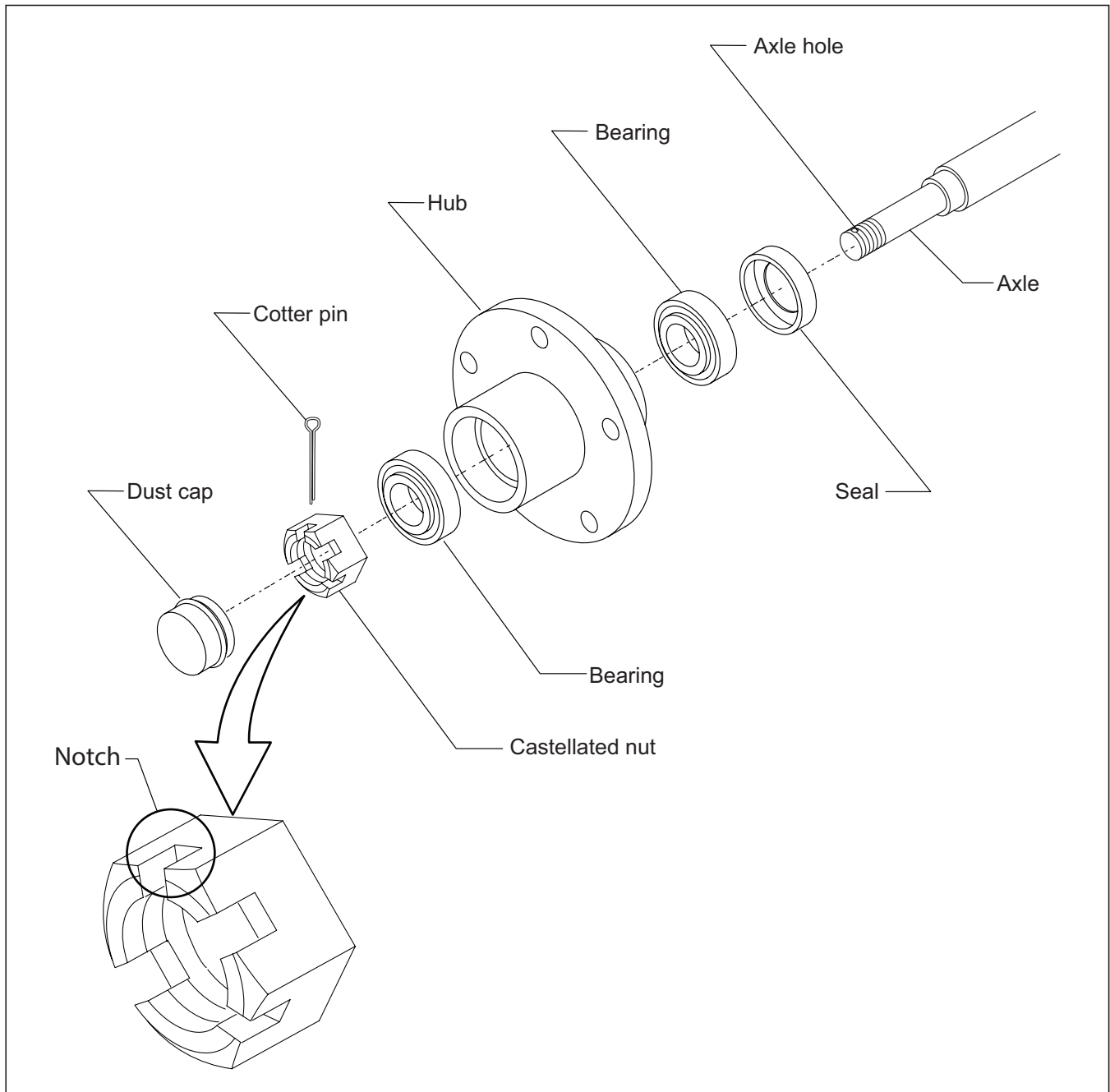


Figure 77 Assembling the wheel hubs

## STORAGE

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At the end of the season, prepare the blower for storage by following these procedures:

1. Clean out the Forage Blower of all dirt, crop material, excess grease or any other foreign substance which may absorb water and cause rust.
2. Completely lubricate the Forage Blower.
3. Clean and oil all components which have been exposed to wear.
4. Paint where the paint has worn off.
5. Order parts that need to be replaced, and repair your Forage Blower before starting a new season.
6. Store the Forage Blower in a clean and dry location.
7. Remove tension on all belts.
8. For your own safety, replace all damaged guards and damaged safety signs.

**NOTE:** NEVER use a pressure water gun to clean the bearings and roller chains.

# TROUBLESHOOTING

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>REMEDY</u>
Pipes jam	Built-up pressure in the silo	Open silo roof door
	High winds on top of silo	Close partially silo roof door
	A pipe section was assembled with an obstruction inside	Always check the full height (length) of the pipes. Pipes need to be perfectly straight
	Static in pipe	Ground pipe
	Check if silo is completely filled	Continue with another silo
	The fan does not blow sufficiently	Check that air intakes are open. If they are, adjust the fan
	Pipes, drum contour and blades are in bad condition	Check, rectify, and repair if necessary
Blower requires more power	Sticky residues have accumulated inside the fan	Adapt a water hose and let water flow during the operation
The auger continues to turn when the control lever is disengaged	The auger driving belt is not properly adjusted	Adjust the auger brake following the instructions
Auger jams	Belts are slipping or broken	Tighten belts or replace them
	The alignment of the auger reduces toward the fan	Adjust the auger following the instructions of this manual
Drum vibrates	The mobile contour set screw is not properly tightened	Clean the inside contour then securely tighten this screw along with the contour reinforcement
Drum knocks	Fan is misaligned with both drum sides	Align fan, making sure it is at equal distance from both sides
Auger knocks	Damaged auger	Replace auger
	Sticky debris have accumulated at the bottom or bearing is broken	Clean the bottom and let a trickle of water flow out or replace the bearing
The speed reducer becomes abnormally hot	Low oil level or incorrect alignment	Check oil level and/or align the speed reducer
The Blower contour is abnormally dark near the outlet	The adjustment of the fan is too tight near the outlet	Check fan adjustment and, if required, move it 0.030" away from the contour.