S3 AWS AIRBAR

Operator's Manual

Airbar® System

SCAN ABOVE TO FIND
PARTS BOOKS

more **yield**
from your **field**

with air assist harvesting

Version: 20221104

AWS Limited Warranty Policy

THE PROMISE:

"As a member of the S3 Group, we manufacture AWS Airbar® systems with pride and confidence in its design, performance and durability.
If at any time there is a failure in our product which you feel is warrantable, please inform us and we will do our best to get you back in the field as quickly as possible."
Mark MacDonald – General Manager

THE POLICY:

AWS Airbar® systems are warranted to be free from defects in material and workmanship when used properly in normal agricultural practice by the original purchaser for a period of twelve (12) months from original date of purchase.
This warranty shall be limited to the repair or replacement (at the manufacturer's discretion) of any product or part which proves to be defective as provided. AWS reserves the right to either inspect the product at the purchaser's location or have it returned (at the purchaser's expense) to the factory for inspection. Shipping expense incurred by the purchaser will be refunded in full upon acceptance of the claim.
The warranty does not extend to goods improperly installed, altered or repaired, damaged or subject to accident, abuse or misuse after shipment from the AWS factory. AWS will in no event be liable for any incidental or consequential damages whatsoever. Nor for any sum in excess of the price received for the goods for which liability is claimed.
AWS makes no Express Warranties other than those, which are specifically described. Any description of goods, including any references and specifications in catalogues, circulars and other written material published, is for illustrative purposes only and does not create an Express Warranty that the goods conform to sample or model shown.
Warranty terms and conditions are subject to Provincial or State legislation.

WARRANTY CLAIMS:

Claims must be submitted within a thirty (30) day period from date of failure on fully completed AWS Warranty Claim Forms (fan serial number, customer name and failure background information). Claims may be made at the time of replacement part ordering.
Part & shipping costs of replacements will be reimbursed to dealer at list price. **Any labor costs claimed must be pre-authorized by AWS.** Repair time allowed is at the discretion of AWS, the labor rate will be credited at 100% of the dealer's posted shop rate.
AWS is not responsible for travel, nor diagnostic time without consultation.

Temp Farm Equipment Ltd.
3890 Wellington St. Box 269 Mitchell, Ontario Canada N0K-1N0 519-348-0066 www.awsairbar.com

AWS Warranty Registration

AWS Serial Number: _____

Owner Name: _____
Address: _____
City: _____
Prov. /State: _____
Postal Code: _____
Phone: _____

Combine Make / Model: _____
Header Make/ Model / Width: _____

Purchase Date: _____
Selling Dealer: _____
Location: _____

Submit Warranty Registrations to:
Mail: TEMP Farm Equipment Ltd.
3890 Wellington St.
Box 269
Mitchell ON, N0K1N0
Fax: 519-348-0066
Email: admin@awsairbar.com
Please phcopy and retain for your records

TABLE OF CONTENTS

INTRODUCTION

Thank you for purchasing an AWS Airbar® system. This product is designed and manufactured to allow for safe operation while increasing the productivity of your harvesting operation. A well-maintained system will provide years of reliable service.

FOREWORD

Keep this manual with the system at all times. This manual is intended as a guide to the safe use and maintenance of the system. Before you head to the field, study this manual carefully. **Replace this manual immediately if it becomes lost.**

AWS Airbar® systems are an air-assist tool to increase the productivity and efficiency of your auger or draper style combine header. This system is customized to fit your head / combine combination. The air blast provided by the system improve crop in-flow past the knife and reduce shatter related losses at the knife.

Like the other systems within your combine; the Airbar® system requires proper setup and adjustment for satisfactory operation. These instructions can be found in this manual.

You may encounter conditions where it is advantageous to remove the Airbar® manifold/nozzles temporarily.

Features:

- Belt driven, low noise fan drive, powered from the combine header drive system.
- Optimized nozzle configurations (based on reel design)
- Adjustable air flow and nozzle position
- In-cab adjustment controls

Applications:

- Dry Beans
- Soybeans
- Lentils
- Peas
- Cereals

ITEMS INCLUDED WITH AIRBAR® KITS

- Operator's Manual
- Installation Manual

SERIAL NUMBER LOCATION

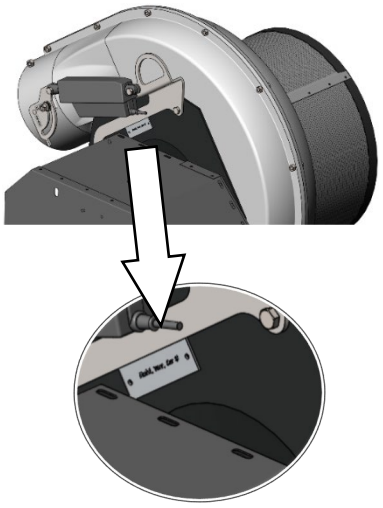
The serial number plate for the system is located on the fan housing plate.

For quick reference, record the following information:

Header Model: _____

Serial Number: _____

Date Purchased: _____



REPLACEMENT PARTS INFORMATION

Use only genuine Original Equipment Manufacturer's (O.E.M.) replacement parts. The use of "will fit" parts may reduce system performance, void manufacturer's warranty and present a safety hazard. Use only genuine O.E.M. replacement parts. Use this QR Code to find replacement parts:

UNAUTHORIZED MODIFICAITON

Modifications to the original design of the Airbar® system, including the use of unauthorized accessories or non-genuine OEM parts, may affect the reliability of the system or make it unstable or unsafe to operate and perform as originally designed and intended. Persons or organizations that make unapproved modifications (including operation without provided guards and shields) assume all liability arising from or related to the modification including any adverse affect on the system.

No modification can be made to the original design or assembly of the Air-Bar system (including any and all attachments, safety or control devices) without the prior written consent of TEMP Farm Equipment (see contact information below). TEMP Farm Equipment Ltd. retains the right to reject all claims which arise from or are related to unauthorized modifications.

MISUSE OF EQUIPMENT

It is incumbent upon the user, owner and selling dealer of this equipment along with their respective employees to warn and discourage users about the misuse of the equipment whenever knowledge of misuse becomes known, whether the act has, is or could occur. Such acts include, but not limited to: riding upon, use of non-OEM parts, operating in fire-hazard areas, modifications that alter the original system specifications or use other than originally intended, etc.

PRODUCT DESIGN

If any person, employee, agent, dealer or distributor becomes aware of any Unauthorized Modification or Misuse of an AWS Airbar® system, either past or intended, it is the responsibility of that person to ensure that TEMP Farm Equipment is notified of the occurrence promptly. That person shall provide; the facts of the occurrence, location, system serial number, name and contact information of the persons involved.

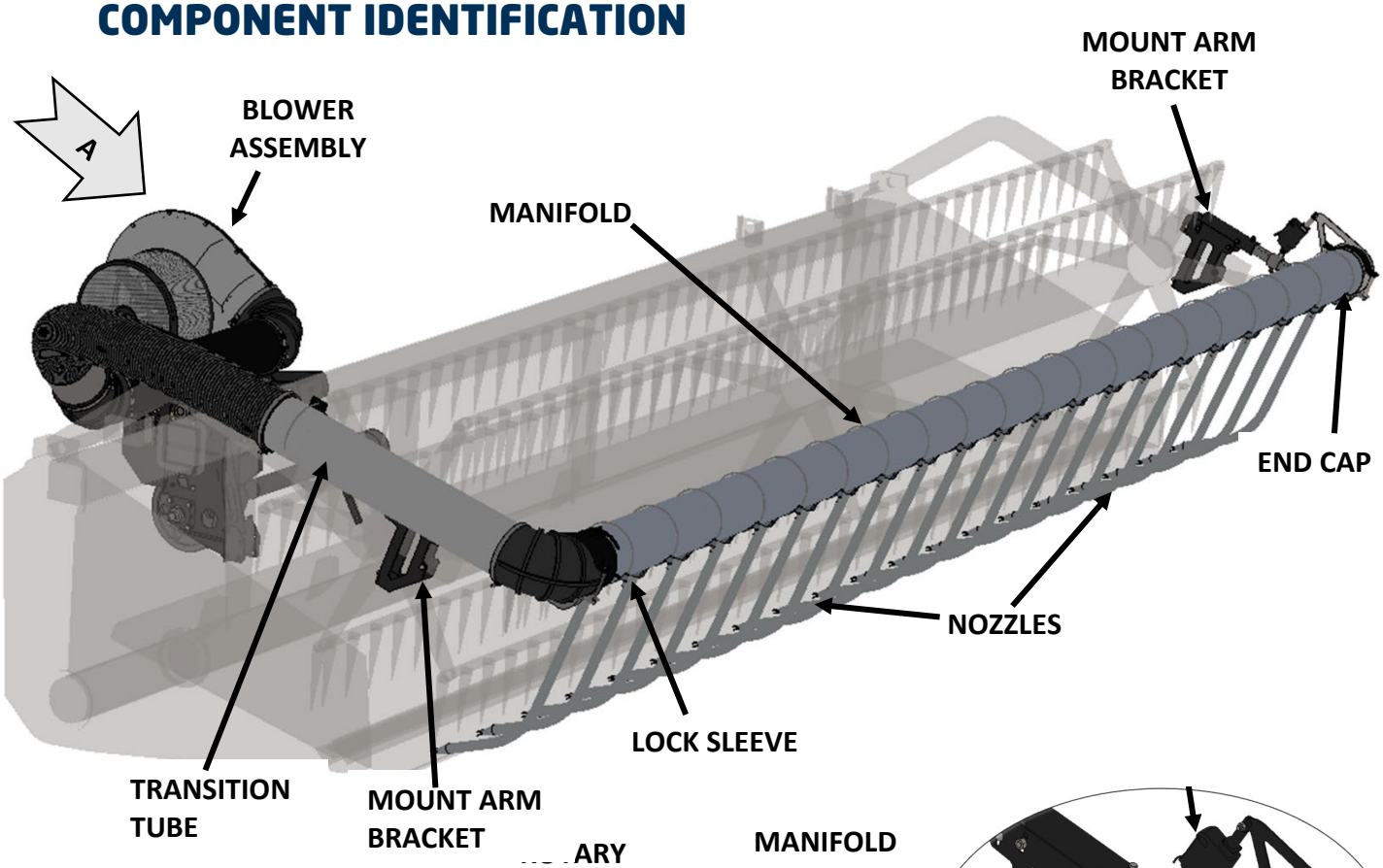
Send correspondence regarding Unauthorized Modification or Misuse to:

TEMP Farm Equipment
3890 Wellington St.
Mitchell, Ontario, N0K 1N0
Canada

OFFICIAL LANGUAGE

No responsibility is assumed for translations in other languages, which do not correspond to the original meaning. Under our policy of continuous improvement, we reserve the right to change specifications and designs without prior notice. The illustrations shown do not necessarily represent the standard version of product offered by TEMP Farm Equipment Ltd.

COMPONENT IDENTIFICATION



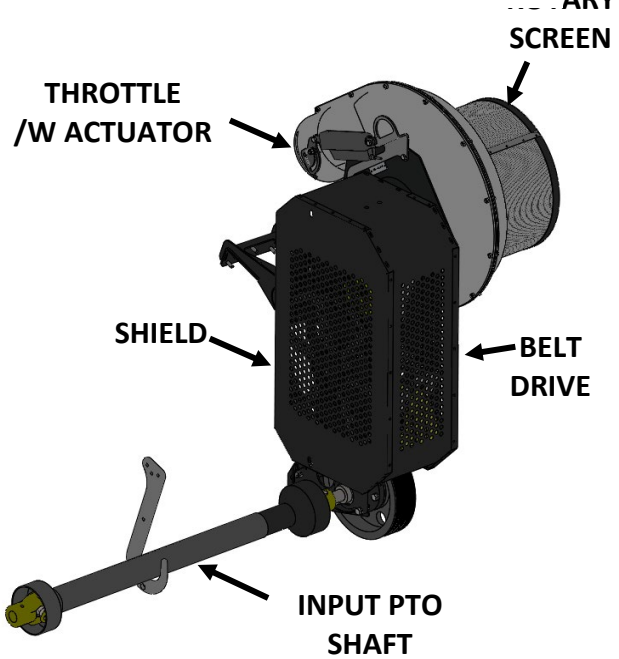


Figure 3 – View 'A'

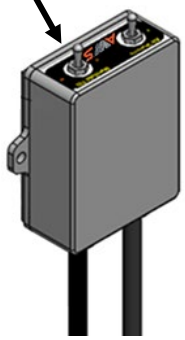


Figure 4
Control Switch Box
(Installed in Cab)

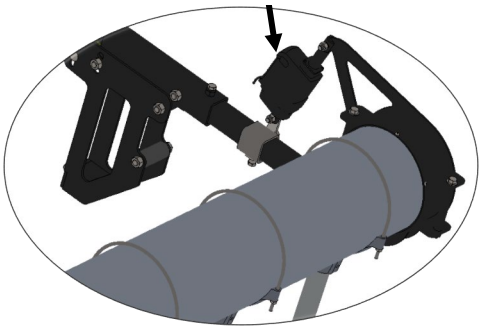


Figure 1 – Manifold Tilt Mechanism – 1 pc Reel

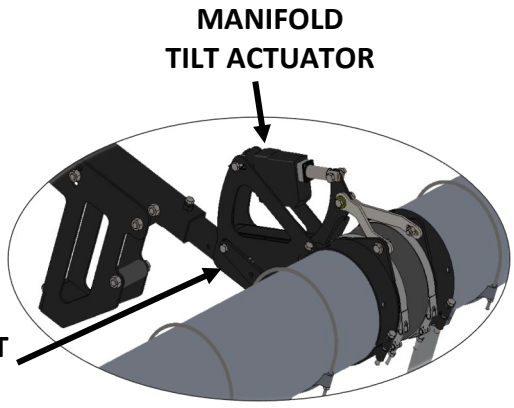


Figure 2 – Manifold Tilt Mechanism – Multi-piece Reel

SAFETY

SAFETY ALERT SYMBOL

This symbol appears at various points in the manual together with a signal word and warning text. It means – Be alert! Your safety is involved. This symbol is used throughout the manual to call attention to areas in which carelessness or failure to follow specific procedures may result in personal injury or component damage / malfunction or both.

HAZARD SERIOUSNESS LEVEL

The following signal words are found throughout the manual together with the safety alert symbol to indicate the seriousness level of identified hazards. Their selection is based on the consequence of human interaction with a hazard.

DANGER! –Hazards or unsafe practices which WILL result in severe personal injury or death.

WARNING! – Hazards or unsafe practices that COULD result in severe personal injury or death.

CAUTION! – Hazards or unsafe practices that COULD result in minor personal injury or product or property damage

GENERAL SAFETY PRECAUTIONS

The operator of this system must have sufficient knowledge and instructions in the care and operation of this system and the power unit being used before he / she uses the system. Do not allow unauthorized persons or children to operate the system.

It is the obligation of the operator to make sure that all guards and shields are in place on the system. Safety decals must be in place and be readable – accidents may otherwise occur. Contact your dealer or the manufacturer for replacement manuals or decals.

- Never use a system that does not have an operator's manual available. Learn and understand the safety signs and symbols on the system and the operator instructions before you begin to use the system.
- Wear personal protective equipment. Know and use the protective equipment that is to be worn when operating or servicing the system. Hard hats, protective glasses and face shields, protective shoes, gloves, reflector type vests, and ear protection are types of equipment that may be required. Prolonged exposure to loud noise can cause hearing damage.

• Never operate a system while under the influence of drugs or alcohol. These make reflexes slow and put you and others in grave danger. Always make sure you have full concentration while harvesting.
• Adhere strictly to all regulations at the worksite pertaining to the operation of this equipment.
• Be prepared for emergencies. Have a first aid kit, fire extinguisher and emergency contact information available at the work site.

POWER UNIT SAFETY

• The operator must have sufficient knowledge in the care and operation of the power unit (combine) before connecting power unit to the system. Read and understand power unit operator's manual before connecting mower.
• Follow recommendations of power unit manufacturer. Seat belt must be worn at all times.

• Power unit must be equipped with a PTO connection matching the shaft supplied with the system. Never use PTO adapters to connect implements.
• Never exceed the feeder house speed indicated on the safety decal while the Airbar® system is in operation.

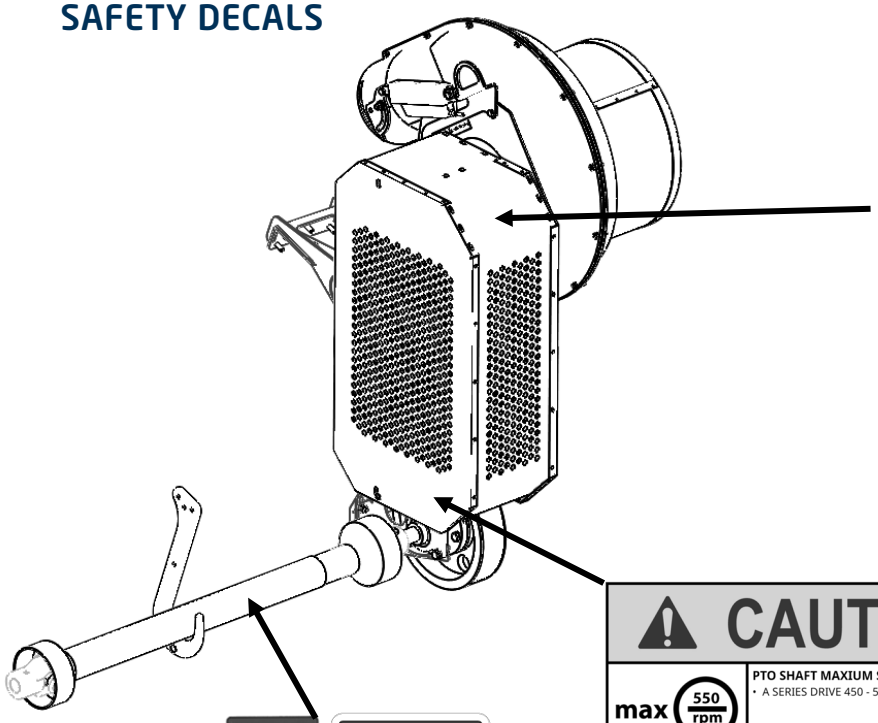
OPERATING EQUIPMENT SAFELY

• Make sure PTO shaft is properly locked. If the PTO shaft comes off during operation, personal injury or equipment damage could result.
• Never disconnect PTO shaft at fan drive. Always disconnect at feeder house end and stow in supplied hanger.
• Keep all bystanders well away from the machine when it is operating. Always maintain a safe operating distance from personnel, other equipment, or vehicles.
• Never operate the system with shields or guards removed.

• Air blast can cause small objects and debris to be blown from the header deck at high speeds. Avoid walking behind header with system operational.
• Never tamper with safety devices or operate the system with them removed. Check proper operation regularly.
• Always disengage PTO, place all controls in neutral, turn power unit off, set parking brake, and remove key before dismounting, for any reason.

- Never place hands or feet near the system components when the system is operating or power unit engine is running.
- Disengage the PTO and turn power unit off upon striking any object. Inspect system and repair any damage before continuing.
- If the equipment should start to vibrate abnormally during operation, stop the system, shut down power unit, and immediately check for the cause. Excess vibration is generally an indication of a problem. Replace bent or damaged parts, do not attempt to straighten a bent fan blade.
- Before disconnecting from power unit, always lower equipment to the ground, place controls in neutral, set park brake, turn engine off, and wait for all moving parts to stop. Relieve hydraulic pressure per power unit manufacturer's instructions.

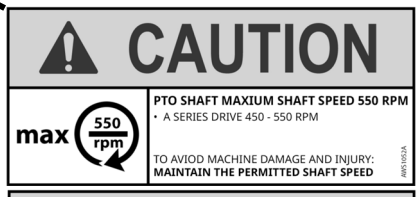
SAFETY DECALS



PN: AWS0062

PN: AWS1053O

PN: AWS1053I



PN: AWS1052A
(John Deere, CaseIH Combines)

PN: AWS1052B
(New Holland, Agco Combines)

PN: AWS1052C
(Claas Lexion Combines)

SYSTEM SETUP FOR OPERATION

FEEDER HOUSE DUST EXTRACTION

⚠ CAUTION!

If the combine is equipped with a forced-air dust extraction system for the feeder house, this feature should be disabled while operating the AirBar system. Failue to disable the dust extraction system will lead to accelerated component wear and possible failure.

WHEN CONNECTING THE HEADER

⚠ WARNING!

EACH SYSTEM IS DESIGNED SPECIFICALLY FOR THE INTENDED COMBINE TO BE USED. DO NOT CONNECT SYSTEM TO A DIFFERENT COMBINE WITHOUT CONSULTING TEMP FARM EQUIPMENT FOR APPROVAL. DRIVELINE OVERSPEED COULD OCCUR

CONNECTING THE PTO

Ensure the feeder house drive splines are free debris and covered in a light coat of grease.

Remove telescoping PTO shaft from storage hanger and connect to feeder house shaft. Verify that the quick-attach collar fully locks. Secure shield safety chain to feeder house.

ELECTRICAL CONNECTIONS

There is a single connection to be made between the combine and Airbar® system. Locate the 4-pin connector on the header harness and connect to mating connector on feeder house.

WHEN DISCONNECTING THE HEADER

DISCONNECTING THE PTO

Disconnect telescoping PTO shaft from the feeder house shaft. Place shaft in the storage hanger.

⚠ WARNING!

DO NOT LEAVE PTO SHAFT CONNECTED TO THE COMBINE. PERSONAL INJURY OR MACHINE DAMAGE MAY OCCUR IF FEEDER HOUSE IS ENGAGED.

ELECTRICAL CONNECTIONS

Disconnect the 4-pin connector joining the combine to the header. Secure both ends of the harness to avoid damage when the system is not in use.

OPERATING THE SYSTEM

DAILY CHECKS

Safety Shields	In place
Rotary Screen	Rotates freely Clear of trash
Nozzles	Proper nozzle opening Properly secured to manifold No bent / broken nozzles
Electric Controls	Throttle & manifold tilt actuators function properly
Electrical Connection	Plugs secured at header Harness is secured

REEL POSITION

The use of the Airbar® system aids not only in reducing shatter loss but also the inflow of crop material, assisting the finger reel system.

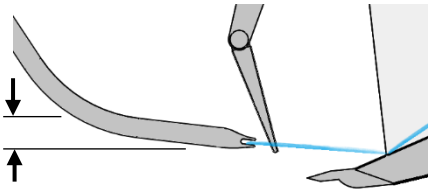
In most cases, shatter loss can be reduced further with the ability to set the finger reel higher than if an Airbar® system is not used.

When entering the crop, begin with the reel the "normal" height and begin to raise the reel until you see a decrease in performance.

MANIFOLD HEIGHT ADJUSTMENT

The manifold height can be adjusted in accordance with the desired reel position. In most applications the mid-height adjustment hole is appropriate.

It is important that the "heel" of the nozzle (area of the bend) is 2-4" higher from the ground than the nozzle tip when in the operating position.

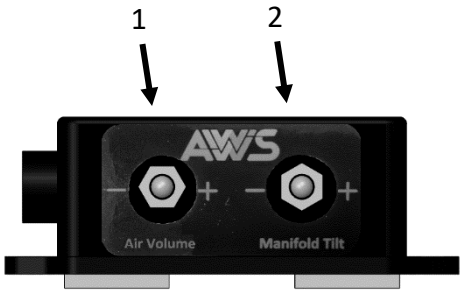


ELECTRICAL CONTROLS

All nozzle and air flow adjustments for the Airbar® system are made using the electrical switch box installed in the cab.

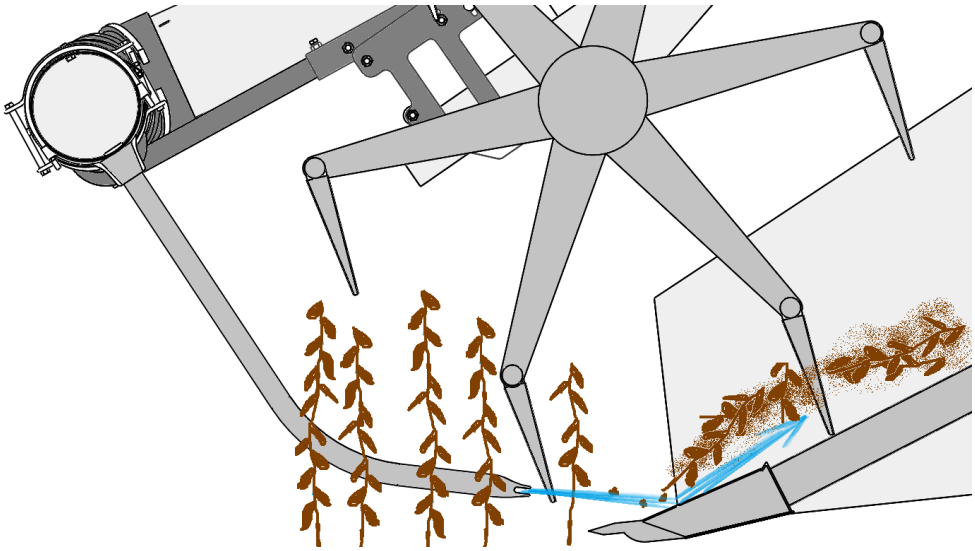
There are 2 separate switches:

1. Air Volume (Cycles Throttle Actuator)
   + Increase Air Output
   - Decrease Air Output
2. Nozzle Tilt (Cycles Manifold Tilt Actuator)
   + Tilt Nozzle toward head
   - Tilt Nozzles Away from Head

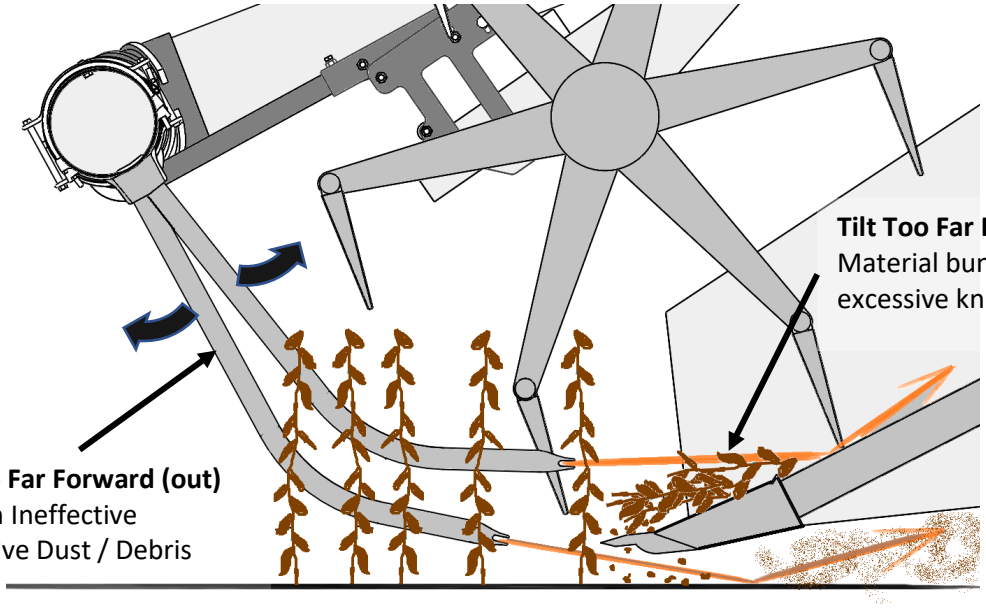


NOZZLE ROTATION ADJUSTMENT

The most important adjustment affecting the performance of your Airbar® system is the position of the nozzles.
The nozzles should be aimed so that the air blast contacts the head 2" – 5" behind the knife.



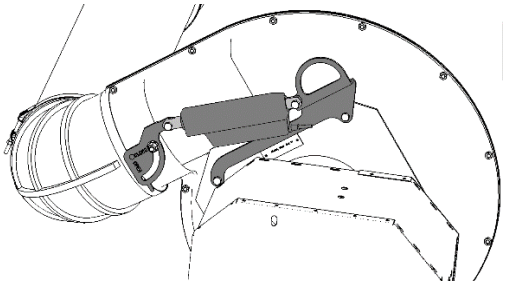
This position will allow for loose crop material to be swept into the header as well as aid in lifting the crop mat into the infeed system on the header (auger or canvas). The crop mat should "float" on a cushion of air similar to an air-hockey puck.
Indicators of improper nozzle adjustment are:



Tilt Too Far Rearward (in)
Material bunching on knife, excessive knife losses

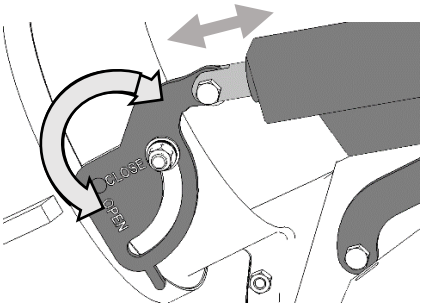
Tilt Too Far Forward (out)
-System Ineffective
-Excessive Dust / Debris

AIR FLOW ADJUSTMENT



The AWS Airbar® system is designed to be capable of providing excess air flow in most applications. The electric throttle control is provided to allow for optimization of the air flow regardless of harvest conditions.

NOTICE - The use of excess air flow not only leads to increased crop loss but also consumes excess power; leading to increased component wear and fuel consumption.

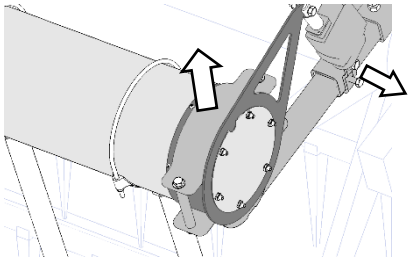


To Adjust Air Flow:

- Position and the air throttle at the full-open position.
- Close the throttle a bit at a time, observing the crop flow over the knife after each adjustment.
- At the point where you see the crop flow worsen, open the throttle back up to the previous position.
- This is the most efficient setting for those conditions.

This setting should be checked periodically through the day as well as from field to field. Plant moisture content, yield, and plant population will affect where the throttle should be positioned.

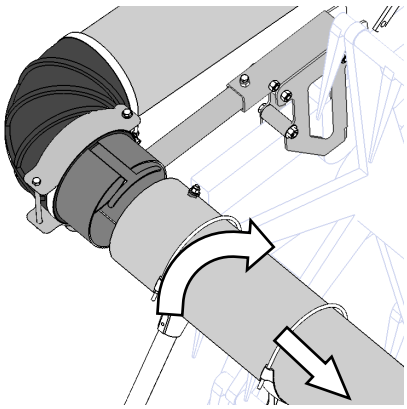
REMOVING THE MANIFOLD



In certain down or tangled crop conditions it is desirable to remove the Airbar® manifold and nozzles for proper crop recovery. This can easily be done using the following procedure:

1-Piece Reel

1. Disconnect manifold tilt actuator wiring harness and remove lower actuator mounting bolt from manifold arm. (Actuator will stay with manifold when removed)
2. Remove (2) 3/8x5 bolts & spacers securing saddle clamp to end cap.
3. With a person at each end of the manifold, lift end-cap end and rotate to disengage lock sleeve bushing.
4. Pull manifold away from air feed elbow.
5. The manifold is now free from the header, hang or store in a safe location.
6. Re-install saddle clamp with removed bolts & spacers.
7. Ensure PTO shaft is disconnected from the feeder house and stored properly.



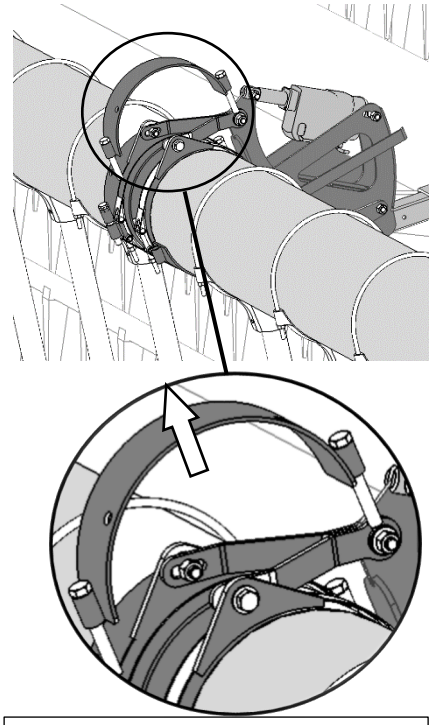
Multi Piece Reel (John Deere, CNH)

LH Manifold

1. On LH end, remove (2) 3/8x5 bolts & spacers securing saddle clamp to end cap.
2. At the center pivot, remove the LH clamp securing the manifold to the center pivot assembly.
3. With a person at each end of the manifold, lift each end and remove manifold.
4. Re-install center pivot clamp and saddle clamp with removed bolts & spacers.

RH Manifold

5. On RH end (at center pivot), remove the RH clamp securing the manifold to the center pivot assembly.
6. With a person at each end of the manifold, lift center pivot end and rotate to disengage lock sleeve bushing.
7. While supporting the RH end of the manifold, Pull manifold away from air feed elbow.
8. The manifold is now free from the header, hang or store in a safe location.
9. Re-install saddle clamp with removed bolts.
10. Ensure PTO shaft is disconnected from the feeder house and stored properly.



Steps 2 & 6 Removing Center Pivot Clamp.
(John Deere, CNH)

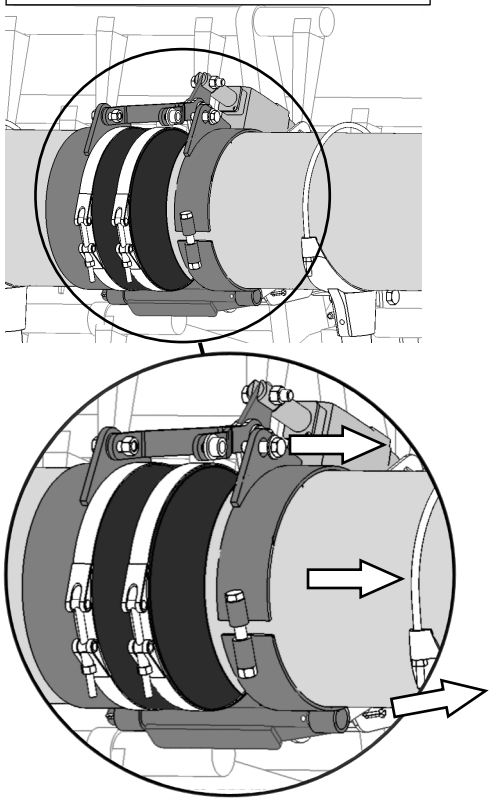
Multi Piece Reel (MacDon, Claas, Honeybee, Geringhoff)

LH Manifold

1. On LH end, remove 3/8x5 bolts & spacers securing saddle clamp to end cap.
2. Remove hose clamp & rubber connector hose from end of LH manifold.
3. At the center pivot, remove the 3/8x 1 1/4 bolt (at top) securing the manifold clamp to the center pivot assembly.
4. Remove cotter pin retaining manifold clamp (at bottom)
5. With a person at each end of the manifold, lift each end and remove manifold.
6. Re-install removed hardware for safe keeping.

RH Manifold

7. On RH end (at center pivot), remove the 3/8x 1 ½ bolt (at top) securing the manifold clamp to the center pivot assembly. (Hose clamp & rubber connector hose can remain on manifold)
8. With a person at each end of the manifold, lift center pivot end and rotate to disengage lock sleeve bushing.



Steps 2 & 6 Removing Center Pivot Bolt & Cotter Pin
(MacDon, Claas, Honeybee, Geringhoff)

9. While supporting the RH end of the manifold, Pull manifold away from air feed elbow.
10. The manifold is now free from the header, hang or store in a safe location.
11. Re-install removed hardware for safe keeping
12. Ensure PTO shaft is disconnected from the feeder house and stored properly.

MAINTENANCE

⚠ WARNING!

Ensure the combine controls are in the park position, the engine is turned off, head is in the parked position, the parking brake is engaged, and hydraulic pressure has been relieved before performing service or maintenance.
Perform all maintenance with the head in the lowered position and the machine on a flat and level surface.
Always use personal protection devices such as protective glasses and face shields, protective shoes, gloves, hard hats, and ear protection when performing service or maintenance functions.
When completing a maintenance or service function, ensure all safety shields are installed before placing system in service.

	Maintenance Intervals	
Service	Weekly	Annual
Inspect Nozzles	X	
Grease PTO Shaft	X	
Grease Bearings	X	
Check / Adjust Belt Tension	X	
Inspect Rotary Screen	X	
Inspect Fan Impeller	X	
Inspect Manifold	X	
Inspect Pulleys/Sheaves		X
Inspect Bearings / Idlers		X
Inspect Framework / Fasteners		X

Scan above to find parts books.

LUBRICATION

GREASE SPECIFICATIONS

NOTICE – All greases are not compatible. Use of incompatible greases will decrease lubrication qualities and can cause premature component failure

Specification: NLGI GL-2

Grease Type: Mineral Oil, Lithium Soap Thickener

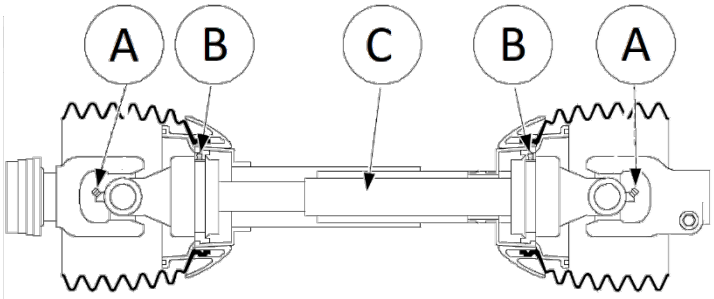
Grease of this type is considered "general purpose". It can be used on all components of the Airbar® system.

Notes:

1. Do not use "high-temperature" greases. Normal operating conditions of this system will not exceed the recommended temperature range of conventional grease. High-temperature greases may use thickeners not compatible with OEM grease.
2. Do not use "MOLY" greases (molybdenum disulphide additives). These greases are not suitable for extended use with rolling element bearings.
3. Do not use greases with synthetic base oils. These synthetic components may not be compatible with OEM grease.

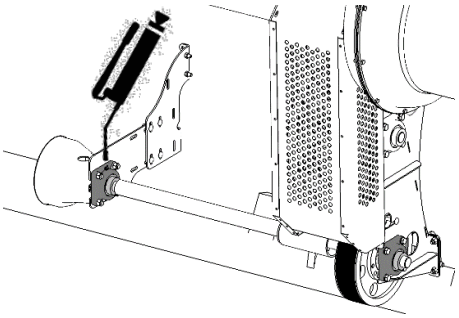
PTO SHAFT

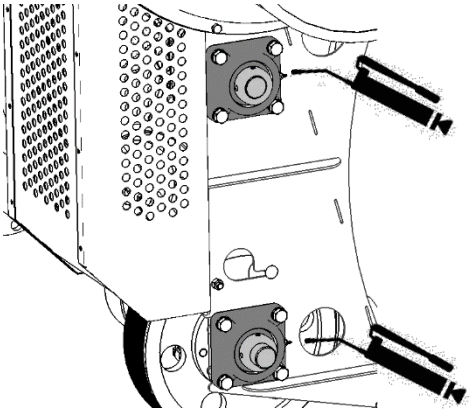
Location A – 4-6 Pumps (15 grams)
Location B – 2-3 Pumps (6 grams)
Location C* – 4-6 Pumps (15 grams)
*Note – Pull PTO shaft apart & apply grease to inner profile.



BEARINGS

The (4) shaft bearings are the only grease points on the main chassis, (2) on each side.





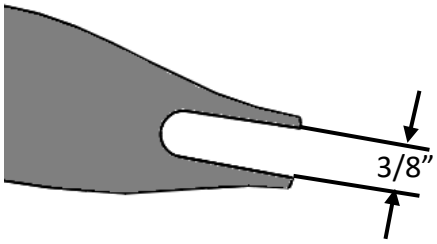
On some 35' and 45' systems (equipped with an extended driveline), there is an additional bearing that requires greasing.

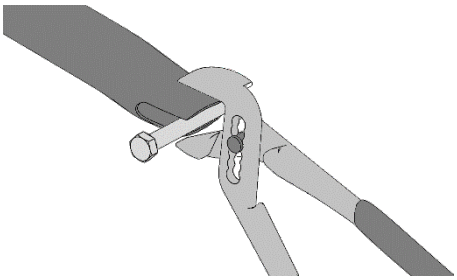
NOZZLE INSPECTION

Opening

It is critical that the nozzle opening be set to 3/8". They can become collapsed or opened during use from contact with rocks and other debris and wear.

To check & set the opening, a 3/8" bolt can be used. To set the opening, insert the bolt and pinch using pliers as shown.





U-Bolt

Vibrations from normal use can cause the gasket between the nozzle yoke & manifold to take a set, reducing tension in the U-bolt. Check tightness of U-bolt nuts periodically using a 7/16 wrench or deep socket.

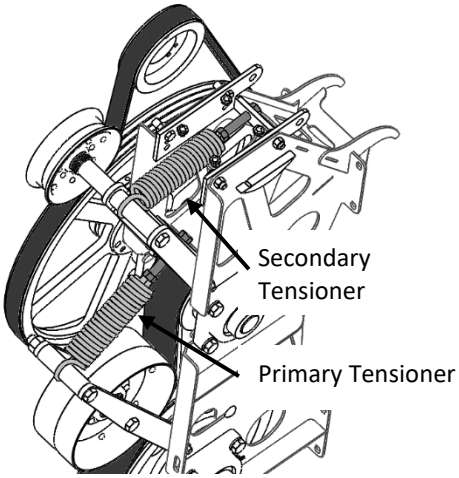
BELT / SHEAVE / IDLER CONDITION

Inspect all belts, sheaves and idlers for good condition.

Belts should appear supple with no shiny appearance on the drive surface or cracks on the inner or outer surface.

Belts should not sit in the bottom of the sheave grooves or the inner ribs between grooves should not be worn to a point. If either of these cases exist, the sheave is worn excessively and should be replaced.

Idler pulleys should be in-line with the belt running path and parallel with the sheaves. If the idler is not inline or parallel, inspect the idler bearing condition or the bronze bushings on which the idler pivots for wear. Replace as required.



BELT TENSION

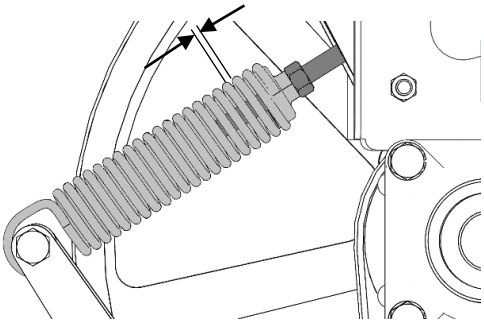
Proper belt tension is critical to both optimum performance and long life of your Airbar® system. Loose belts will create excessive heat and ultimately fail. Belts that are too tight can lead to accelerated bearing failure.

Belt tension is set using a draw-bolt to extend a spring. The extended spring maintains tension.

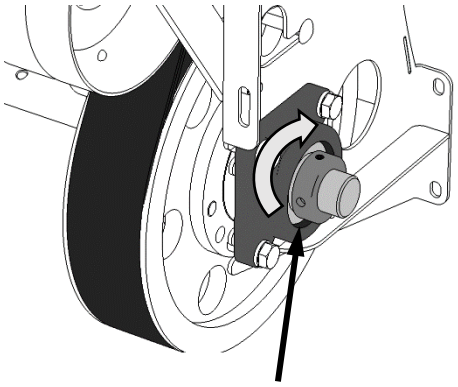
On initial tensioning of new belts, tighten the draw bolt until a 1/8" gap is present between the spring coils (roughly the thickness of two quarters). Once initial run-in is completed, maintain a minimum 1/16" (roughly the thickness of a quarter) gap in the spring.

It is important to set the secondary belt tension first, then the primary. Double-check the secondary belt tension after setting primary tension.

1/8" (2x "Quarter" Thickness) – Initial
1/16" (1x "Quarter" Thickness) – Run-In



BEARING SERVICE

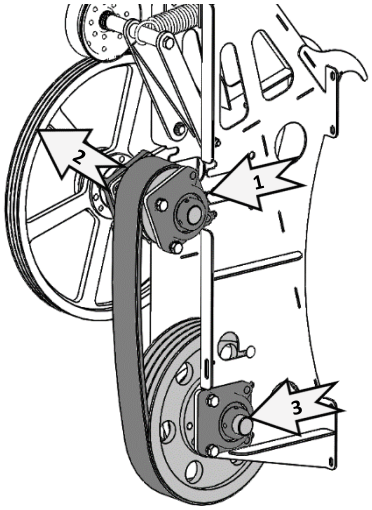


The spherical bearings used on the Airbar® drive system are secured to the shafts using eccentric locking collars.
NOTE – Always apply anti-seize compound to shaft before mounting bearing.
To secure the collars:

- Slide the eccentric collar against the mating end of the insert inner race.
- Snug the collar on the mating eccentric in the direction of shaft rotation.
- Place a mild steel bar inside the hole provided by the collar and tap the collar sharply in the direction of shaft rotation and perpendicular to the shaft
- Tighten the setscrew in the collar to the proper torque (156 in-lb)
- Re-check tightness of the setscrew and hold down bolts after 24 hours of operation to insure nothing has loosened.

To remove the collar

- Loosen the setscrew, then tap the collar in the direction opposite the shaft rotation.



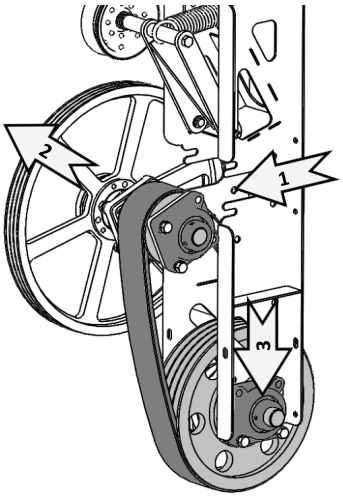
BELT SERVICE

From 2021, all AWS Airbar® systems are delivered with the new ServiceMaster chassis. This chassis design allows for primary belt change-out in up to 70% less time than the previous designs.

Belt Removal

It is not required to remove the bearings from the shaft to change the primary belt:

1. Remove Shield
2. Release tension from primary belt & remove idler pulley or tensioner arm assembly.
3. Release tension from secondary belt & remove belt
4. Beginning with the top shaft, remove bearing bolts at front of chassis.
5. LOOSEN bearing bolts at rear of chassis.
6. Slide top shaft assembly out of chassis toward rear and remove from belt. Set aside.
7. Repeat above steps for bottom shaft and remove belt.



Inspection

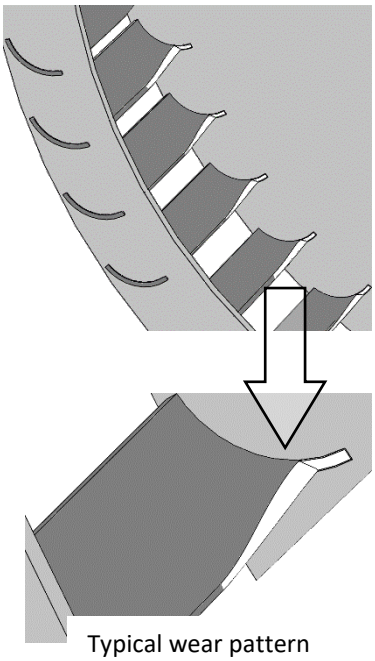
8. Inspect sheave condition.
   - Drive surfaces should be smooth and free from pitting or grooves.
   - The bottom of the groove should show no sign of wear.

- If available, use a commercially available groove gauge to determine condition. In no circumstance should the land between grooves be a sharp edge.

9. Inspect tensioner condition.
   - Ensure bronze pivot bushings are in good condition and rotate freely in tensioner arm.
   - Use of impact tools to tighten pivot joints can deform bronze bushings, causing binding of the pivots and premature belt failure.

Reassemble

10. Repeat steps 1-7 in reverse order to install new belt.
11. Tension belts per method shown on page 14.



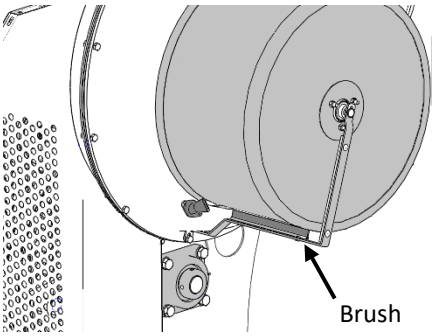
Typical wear pattern

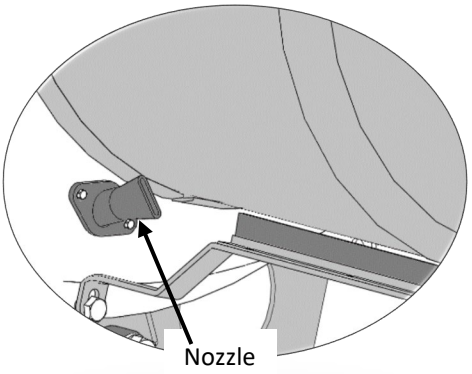
BLOWER INSPECTION

Remove rotary screen & inspect all impeller blades.
Replace impeller if any of the fins are loose or if wear has reduced the width of the fin.
Clean housing and impeller removing all debris.

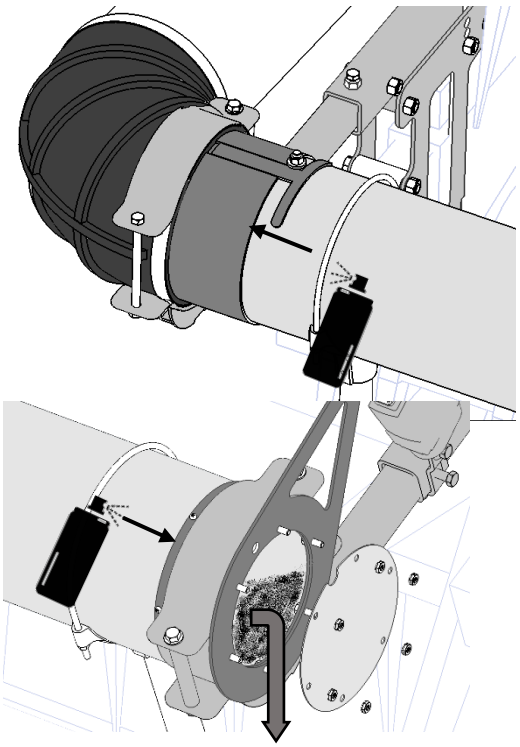
ROTARY SCREEN

From 2022, all AWS Airbar® Blowers are equipped with a cleaning nozzle to remove debris from the circumference of the rotary screen in conjunction with the rotary screen brush.
The nozzle provides a steady stream of air over the clean-off area of the screen to remove leaves and debris as the screen rotates.
If the nozzle provides sufficient cleaning alone, the brush may be removed for operation.
When clean, the screen should be free to rotate without any contact with other parts. If there is contact between the outer screen and inner support, manually manipulate the screen to eliminate contact.
Ensure all internal blades are in good shape and bearings rotate smoothly without excessive noise.





MANIFOLD / AIR DUCTING



FLEX HOSE

Inspect flex hose for signs of weather cracking & wear.

To maximize flex hose life & ensure even wear rotate the hose 45° before the start of each season.

MANIFOLD ROTATION

The manifold is supported by 2 saddles which allow it to rotate via the electrical actuator. This must be kept lubricated for proper operation.

Apply a dry-film (graphite or PTFE) lubricant to the lock sleeve & end cap areas annually or before use.

CLEANING MANIFOLD

During operation, a large amount of dust and debris is transferred through the air duct system. What is not discharged through the nozzles will collect at the end of the manifold. It is important to clean this annually to prevent the debris from clogging nozzles and reducing system performance.

Remove end-cap from manifold and vacuum any debris collected during the previous harvest season.

FASTENER TORQUE

The chart below lists the proper installation torque for fasteners on Airbar® systems. When bolts are to be tightened or replaced, refer to this chart to determine the proper torque (unless otherwise specified in this manual).

SAE Grade 5 fasteners are used in the assembly of the system, unless otherwise specified in this manual.

Bolt Grade / Class Identification

SAE Gr 2 (No Dashes) | SAE Gr 5 (3 Dashes) | SAE Gr 8 (6 Dashes)

Bolt Diameter	Std. Nut Recommended Torque	Stover Lock Nut Recommended Torque
1/4	86 in-lb	93-144 in-lb
5/16	178 in-lb	192-251 in-lb
3/8	26 ft-lb	28-37 ft-lb
1/2	64 ft-lb	69-90 ft-lb

TROUBLESHOOTING GUIDE

Problem	Possible Cause	Solution
Low Air Flow / Poor Performance	Improper Nozzle Opening (Too Wide)	Check / Adjust Nozzle Opening (See page 14)
	Missing / Broken Nozzle(s)	Replace Nozzle(s)
	Damaged Flex-Hose	Replace Flex-Hose
	Plugged Nozzles / Manifold	Remove end-cap /nozzles, inspect & clean (See page 17)
	Loose / worn belts	Inspect & adjust / replace as required (See page 14 & 15)
Rapid belt wear	Improper tension	Adjust to specification (See page 14)
	Worn sheave(s)	Inspect & replace as required (See page 15)
	Worn belt(s)	Inspect & replace as required (See page 15)
	Binding in Tensioner Pivots	Inspect bronze bushings in tensioner arms for binding (See page 15)