



3240 Merger



Operator's Manual

v.2026



This symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! The message that follows the symbol contains important information about your safety. Carefully read the message. Make sure you fully understand the causes of possible injury or death.

BEFORE STARTING THE ENGINE, DO THE FOLLOWING:

1. READ THE OPERATOR'S MANUAL.
2. READ ALL SAFETY DECALS ON THE MACHINE.
3. CLEAR THE AREA OF OTHER PERSONS.
4. LEARN AND PRACTICE SAFE USE OF MACHINE CONTROLS IN A SAFE AND CLEAR AREA BEFORE YOU OPERATE THIS MACHINE ON A JOB SITE.

It is your responsibility to observe pertinent laws and regulations and to follow manufacturer's instructions on machine operation and maintenance.

IF THIS MACHINE IS USED BY AN EMPLOYEE, IS LOANED, OR IS RENTED, MAKE SURE TO FOLLOW THE INSTRUCTIONS BELOW.

BEFORE THE OPERATOR STARTS THE ENGINE:

1. GIVE INSTRUCTIONS TO THE OPERATOR ON SAFE AND CORRECT USE OF THE MACHINE.
2. MAKE SURE THE OPERATOR READS AND UNDERSTANDS THE OPERATOR'S MANUAL FOR THIS MACHINE.

 **WARNING**

IMPROPER OPERATION OF THIS MACHINE CAN CAUSE INJURY OR DEATH.

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TO THE OWNER

Congratulations on the purchase of your new 3240 Martin Forage Merger. You have selected a top-quality machine that is designed and built to ensure you have many years of efficient and reliable service.

Many people have worked on the design, production, and delivery of this Forage Merger. The information in this manual is based on the knowledge, study, and experience through years of specializing in the manufacturing of farm machinery. This manual is designed to provide you with important information regarding safety, maintenance, and machine operation so you can and will get the best possible performance from your Forage Merger.

Even if you are an experienced operator of this or similar equipment, we ask that you read this manual before operating this Forage Merger. The way you operate, adjust, and maintain this unit will have much to do with its successful performance. Any further questions you may have about this product should be directed to your local D. M. Martin dealer.

SPECIFICATIONS AND DESIGN ARE SUBJECT TO CHANGE WITHOUT NOTICE

D.M. Martin LLC. is continually making product improvements. In doing so, we reserve the right to make changes and/or add improvements to our products without obligation for the equipment previously sold.

Modifications to this Forage Merger may affect the performance, function, and safety of its operation. Therefore, no modifications are to be made without the written permission of D. M. Martin LLC. Any modification made without the written permission of D.M. Martin LLC. will void the warranty of this product.

In the interest of continued safe operation of this Forage Merger, pay particular attention to the safety alert symbol(s) throughout this manual.

D.M Martin LLC. STATEMENT OF PRODUCT LIABILITY

D.M. Martin LLC. recognizes its responsibility to provide customers with a safe and efficient product. D.M. Martin LLC. attempts to design and manufacture its products in accordance with all accepted engineering practices effective at the date of design. This statement should not be interpreted to mean that our products will protect against the user's own carelessness or failure to follow common safety practices nor will D.M Martin LLC. be liable for any such act. In addition, D.M. Martin LLC. assumes no liability for any altered product or any modified product by users or anyone other than an authorized dealer.

IMPORTANT WARRANTY INFORMATION

The warranty for this Forage Merger appears on page 4 and 5 of this manual. To establish proper warranty registration, the Limited Warranty Registration Form must be completed and returned to the factory. Failure to comply with this requirement will result in invalidating the warranty!

LIMITATIONS OF THIS MANUAL

This manual contains operating instructions for your Martin Forage Merger only. Any mention of other machinery in this manual other than the Martin Forage Merger is for reference only. This manual does not replace nor is it to be used for any machinery that may be attached to or used in conjunction with the Martin Forage Merger. While every effort has been made to ensure the accuracy of this manual, D.M. Martin is not responsible for typographical errors.

PARTS & SERVICE

D.M. Martin LLC. has an excellent dealership network ready to answer any questions you may have about your forage merger. Parts for your machine may be ordered through our dealers. When placing a parts order, please have the **model** and **serial number** ready. This will allow the dealer to fill your order as quickly as possible. The serial number is located on the very front of the machine above the hitch between the hydraulic hose hangers.

For your convenience, we have provided this space for you to record your model number, serial number, and the date of purchase, as well as your dealer's name and contact information.



Model Number _____

Serial Number _____

Date of Purchase ____/____/____

Dealer Name _____

Dealer Contact _____

Place Dealer Label Here

LIMITED WARRANTY FOR NEW D.M. MARTIN LLC. FARM MACHINERY (U.S. ONLY)

GENERAL PROVISIONS: D.M. Martin LLC warrants the products it sells to be free from defects in material and workmanship for one year from the date of delivery to the original purchaser. The date of invoice to the retail purchaser and the registration of the machine by the dealer are taken as evidence of the delivery of the machine. D. M. Martin LLC obligation and liability under this limited warranty, is to repair or replace any part(s) that upon manufacture were defective in material or workmanship, as well as labor charges incurred, based on the allowable time for the repair and warranty labor rate authorized by D. M .Martin LLC.

Warranty service shall be performed by an authorized D.M. Martin LLC dealer or authorized service center and will be completed using D.M. Martin LLC supplied parts. Parts supplied for warranty by D.M. Martin LLC are shipped at the cost of D.M. Martin LLC. If the parts are not used in the warranty repair or replacement, the ordering dealer or party will be responsible for shipping charges as well as the cost of the parts. The original purchaser shall be responsible for all normal maintenance, greasing and minor adjustments during and following the warranty period. The original purchaser shall be responsible for service calls and transportation of the farm machinery to and from their dealer or service center. The original purchaser is also responsible for any expedited repair charges (i.e., overtime and “next day air” deliveries) requested by the original purchaser. The original purchaser is also responsible for any repair service, parts, and labor on repairs made to the farm machinery at the time the warranty service was being performed. All general provisions are subject to the product being used in accordance with all recommendations included in the Operators Manual, as well as all limitations stated in the LIMITATIONS section.

SECURING WARRANTY SERVICE: The original purchaser must (1) contact their authorized dealer and report the break-down. (2) The authorized dealer shall provide objective evidence of the farm machinery’s warranty status to D.M. Martin LLC. (3) The authorized dealer shall provide all documentation to D.M. Martin LLC which supports that the farm machinery was thoroughly inspected prior to set-up and delivery to the original purchaser. (4) The original purchaser shall make the farm machinery available to their D.M. Martin LLC authorized dealer and/or D.M. Martin LLC authorized service center within 30 days of the reported break-down. All parts or assemblies replaced under the limited warranty must be held for inspection for ninety (90) days, or until credit has been issued, or a claim has been returned to a dealer. When a claim is returned to a dealer with instructions to return and/or hold the part(s) for inspection, parts must be handled as instructed or the claim may be denied.

SPARE PARTS WARRANTY: D.M. Martin LLC warrants that it will replace or repair (excluding labor) as D.M. Martin LLC elects, without charge, any genuine spare part purchased from D.M. Martin LLC which is defective in material or workmanship within ninety (90) days of the date of installation. This warranty applies to parts that, in D.M. Martin LLC judgement, prove to be defective in either material or workmanship. All parts to be shipped F.O.B. D.M. Martin LLC All spare parts replaced under the spare parts warranty must be held for inspection for ninety

LIMITED WARRANTY continued....

(90) days or until credit has been issued, or a claim has been returned to a dealer. When a claim is returned to a dealer with instructions to return and/or hold the part(s) for inspection, parts must be handled as instructed or the claim may be denied.

LIMITATIONS:

D.M. Martin LLC Limited Warranty does not apply to failure through; normal wear and tear, lack of maintenance, lack of inspection, operator negligence, the machine being involved in an accident, the machine being damaged in shipping, the machine being used for other than the intended purpose of merging forage.

D.M. Martin LLC cannot be held responsible for any claims or injuries to the owner or to any third party, nor to any responsibility resulting from the use of this product.

D.M. Martin LLC Limited Warranty does not extend to parts and elements not manufactured by D.M. Martin LLC, and which carry the warranty of another manufacturer. These parts are subject to the warranty of the original manufacturer.

D.M. Martin LLC makes no other warranty expressed or implied and makes no warranty of merchantability or fitness for any particular purpose beyond that expressly stated in this warranty. D.M. Martin LLC liability is limited to the terms set forth in this warranty and does not include any liability for direct, indirect, incidental, or consequential damages or expenses of delay and D.M. Martin LLC liability is limited to the repair and replacement of defective parts as set forth herein.

Any improper use and/or lack of maintenance, including operation after the discovery of defective or worn parts, operation beyond the rated capacity, substitution of parts not approved by D.M. Martin LLC. or any alteration or repair by others than the authorized D.M. Martin LLC dealer or authorized service center which affect the product materially and adversely, shall void the warranty.

No dealer, employee or representative is authorized to change this warranty in any way or grant any other warranty unless such change is made in writing and signed by an officer of D.M. Martin LLC.

SAFETY FIRST

SAFETY INSTRUCTIONS

“A careful operator is the best insurance against an accident.” Quote from the National Safety Council.

Most accidents can be prevented if the operator:

1. Fully understands how the machine functions.
2. Can anticipate situations which may produce problems.
3. Can make necessary corrections before problems develop.

**THIS SYMBOL MEANS ATTENTION!
BECOME ALERT!
YOUR SAFETY IS INVOLVED!**



Universal Safety Alert Symbol

The American Society of Agricultural Engineers has adopted the Universal Safety Alert Symbol as a way to identify areas of potential danger if the equipment is not operated correctly. Please be alert whenever you see this symbol in the manuals or on your forage merger.

D.M. Martin LLC. strives to make our equipment as safe as possible. A safety conscious equipment operator makes an effective accident-prevention program complete.

Safety features and instructions for the forage merger are detailed in the Safety Instructions section of this Operator's Manual. It is the responsibility of the owner to ensure that all operators read and understand the manual before they are allowed to operate the Forage Merger. (Occupational Safety and Health Administration (OSHA) regulations 1928.57).

NOTICES OF DANGER, WARNING, AND CAUTION

Signal Words: Note the use of signal words **DANGER**, **WARNING**, and **CAUTION** on the forage merger and in this manual. The appropriate signal word for each has been selected using the following guidelines:

DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

SAFETY INSTRUCTIONS

Safety instructions (or equivalent) signs indicate specific safety-related instructions or procedures.

Note: Contains additional information important to a procedure and will be found within the regular text body of this manual.

SAFETY INSTRUCTIONS

GENERAL

Most work-related accidents are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs. As you operate and maintain the Forage Merger you must be alert to potential hazards. You should also have the necessary training, skills, and tools to perform any assembly procedure.

Improper operation and/or maintenance of this unit could cause a dangerous situation that results in injury or death.

Do not use this unit until you read and understand the information contained in this manual. Do not use this equipment for anything other than its intended purpose.



Safety precautions and warnings are provided in this manual and on the unit. If these hazard warnings are not heeded, bodily injury or death could occur to you or to other persons.

D.M. Martin LLC. cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this manual and on the product are, therefore, not all-inclusive. If a method of operation not specifically recommended by us is used, you must satisfy yourself that it is safe for you and for others. You should also ensure that the unit will not be damaged or be made unsafe by the methods that you choose.

The information, specifications, and illustrations in this manual are based on the information that was available at the time this material was written and can change at any time.

Safety Alert Symbols



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

This manual contains DANGERS, WARNINGS, CAUTIONS, NOTICES, SAFETY INSTRUCTIONS, and NOTES which must be followed to prevent the possibility of improper service, damage to the equipment, personal injury, or death. The following key words call the readers attention to potential hazards.

Hazards are identified by the "Safety Alert Symbol" and followed by a signal word such as "DANGER", "WARNING", or "CAUTION".

SAFETY INSTRUCTIONS

Remember:

"The Best Operator is a Safe Operator"



CAUTION



Read and understand the operator's manual and all the safety decals before operating the forage merger. Review all safety instructions with all operators annually.

BEFORE OPERATING

SAFETY INSTRUCTIONS



Do not wear loose fitting clothing as it may catch in moving parts.



Make sure all guards and shields are installed, including the tractor power take-off (PTO) master shield, before starting or operating the forage merger.



Be sure that the correct implement driveline parts are used and that they are properly secured.



Clear the area of bystanders, especially children, when making repairs, adjustments, or performing maintenance on the forage merger.



Do not allow riders.

Put all tractor and machine controls in “neutral” and disengage the PTO before starting. Follow the starting instructions according to the OEM tractor manual.



Operate the forage merger only while seated on the tractor seat.



Make sure the unit is adequately supported with safety blocks or safety stands when changing tires or performing maintenance.

DURING OPERATION

CAUTION



Entanglement Hazard
Keep hands, feet, hair, and clothing away from moving parts. Wait for all movement to stop before approaching equipment. Before making adjustments:

1. Shut off the tractor,
2. Set parking brake,
3. Put machine in neutral, and
4. Remove key while making adjustments.



Keep all shields and guards in place and in good working condition.



Keep all bystanders, especially children, away from the forage merger while in operation.



Do not allow riders while the forage merger is in operation.



Do not attempt to unclog, clean, or adjust the forage merger while it is running.



Stay away from overhead power lines. Electrocutation can occur even without direct contact.



Keep all hydraulic lines, fittings, and couplers tight and free of leaks. (Refer to Safety Guidelines – Hydraulic Safety).



Use caution when ascending or descending on the forage merger. Wet shoes or boots are slippery.

MAINTENANCE SAFETY

SAFETY INSTRUCTIONS

Follow all operating, maintenance, and safety instructions found in this Manual.



Before servicing, adjusting, repairing, or unclogging the machine, always make sure the tractor engine is stopped, key in your pocket, the machine is lowered to the ground, all controls are placed in neutral, the parking brake is set, and all the moving parts have stopped.



Use sufficient tools, jacks, and hoists that have the capacity for the job.



Use support blocks or safety stands when changing tires or performing maintenance.



Follow good shop practices of keeping the service area clean and dry and use adequate light for the job at hand.



Before applying pressure to the hydraulic system, make sure all lines, fittings, and couplers are tightly secured and in good condition.



Make sure all shields/guards are in place and properly secured when performing maintenance.

HYDRAULIC SAFETY

SAFETY INSTRUCTIONS

Follow all operating, maintenance, and safety instructions found in this Manual.

Make sure components in the hydraulic system are kept clean and in good working condition.



Relieve pressure from the hydraulic system before servicing or disconnecting from the tractor.



Keep all hydraulic lines, fittings, and couplers tightly secured and free of leaks.



Replace any worn, cut, abraded, flattened, or crimped hoses.



Do not make any temporary repairs to the hydraulic lines, fittings, or hoses using tape, clamps, or cement. The hydraulic system operates under extremely high pressure and temporary repairs may fail suddenly and create a hazardous/dangerous situation.



Wear proper hand and eye protection when searching for a high-pressure hydraulic leak. Use a piece

of wood or cardboard as a backstop instead of hands to identify and isolate a leak. If injured by a concentrated high-pressure stream of hydraulic fluid, seek medical attention immediately. Serious infection or toxic reaction can develop if hydraulic fluid penetrates the surface of the skin.



Before applying pressure to the system, make sure all components are tight and that the hydraulic lines, hoses, and couplings are not damaged.

TRANSPORTATION SAFETY

SAFETY INSTRUCTIONS

Follow all operating and safety instructions found in this manual when transporting this equipment.

Make sure the forage merger complies with all local regulations regarding transporting equipment on public roads and highways.



Make sure the Slow-Moving Vehicle (SMV) emblem and all lights and reflectors required by local highway and transportation authorities are properly in place, clean, and clearly visible to traffic.



Do not allow riders on any machinery during transport.

Make sure the tractor brake pedals are latched together.

Do not exceed 25 mph (32 km/h) when transporting the forage merger. Always reduce speed on rough roads and surfaces, or when going down inclines.

Use caution when turning and always use the turn signals on the tractor to indicate your turning intentions to the other traffic.

The weight of the trailed machine should NEVER exceed the weight of the towing vehicle.

Check all clearances carefully whenever the machine is towed.

Always completely fold the merger to its saddled position before transporting it on the highway.



Stay away from overhead obstructions and power lines during transport. Electrocution can occur even without direct contact.

TIRE SAFETY

SAFETY INSTRUCTIONS

Follow all operating and safety instructions found in this manual when working around tires.

Have only a qualified tire dealer or tire repair service perform tire repairs.

Do not attempt to install a tire on a wheel or rim unless you have the proper equipment and experience to do the job.

Do not substitute tires with a lesser road rating and/or capacity for the original equipment tires.

WARNING



Explosive Force Hazard
Tire replacement, repair, and/or maintenance should be done by a qualified tire dealer or qualified repair service.

Failure to follow proper procedures when installing a tire on a wheel or rim can produce an explosive force that will result in serious injury or death.

Do not attempt to install a tire without proper equipment and experience to perform the job.

ASSEMBLY SAFETY

SAFETY INSTRUCTIONS

Follow all assembly, operating, and safety instructions found in this manual when assembling this equipment.



Use adequate manpower to perform assembly procedures safely.

Assemble the forage merger in an area with sufficient space to maneuver the largest components and allow easy access to all sides of the machine.



Use only forklifts, lift cranes, jacks, and tools with sufficient capacity for the loads.



Do not allow spectators, especially children, in the working area.

STORAGE SAFETY



Follow all operating and safety instructions found in this manual when storing this equipment.



Store the forage merger in an area away from human activity.



Do not permit children to play on or around the stored machine at any time.

Make sure that the forage merger is stored in an area with a firm and level base to prevent the machine from tipping or sinking into the ground.



Block the wheels to prevent the machine from rolling.

SAFETY PRECAUTIONS



This symbol is used to call your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions. Take time to be careful!

DANGER



“DANGER” indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.

WARNING



“WARNING” indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION



“CAUTION” indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also alert against unsafe practices.

BEFORE you attempt to operate this forage merger, read and study the following safety information. In addition, **MAKE SURE** that every individual who operates or works with this equipment, whether family member or employee, is familiar with these safety precautions. D.M. Martin LLC provides guards for exposed moving parts for the operator’s protection; however, some areas cannot be guarded or shielded to assure proper operation. The **OPERATOR’S MANUAL AND DECALS** on the machine itself warn you of dangers and **SHOULD BE READ AND OBSERVED CLOSELY**.

POWER SOURCE SHUTDOWN PROCEDURE

Before cleaning, unclogging, adjusting, lubricating or servicing this machine:

1. Shut off the tractor engine, remove the starter key and take it with you.
2. Wait for all machine motion to stop.
3. Remove **ALL** power connections from the tractor.

FAILURE TO FOLLOW THESE PRECAUTIONS COULD RESULT IN SERIOUS INJURY OR DEATH.

SAFETY PRECAUTIONS



Some photographs used herein may show doors, guards and shields opened and removed. **BE SURE** that all doors, guards and shields are fastened in their proper position before machine is operated.

DO NOT unclog, adjust, lubricate or service the forage merger unless the "Power Source Shut Down Procedure" has been performed.

KEEP hands, feet and clothing away from pickup teeth and conveyor belts when they are moving!

DO NOT allow minors near the machine!

KEEP the forage merger away from power lines. Contact with electrical lines may result in serious injury or death by electrocution!

ALWAYS be sure maintain proper shielding of the PTO shaft.
Do not attempt to operate this machine without a PTO shaft shield.

DO NOT wear loose or baggy clothing when operating this unit!

DO NOT allow people other than a qualified operator near the unit!

DO NOT exceed a maximum towing speed of 25 MPH (40 KPH) while transporting the forage merger!

**FAILURE TO FOLLOW THESE PRECAUTIONS COULD
RESULT IN SERIOUS INJURY OR DEATH.**

Decals

Item#	Part Number	Part Name	Quantity
1	525	PINCH POINT WARNING DECAL	6
2	530	HIGH PRESSURE OIL WARNING DECAL	3
3	541	SKID SHOE HEIGHT DECAL	2
4	543	4-VALVE STATION LABEL DECAL	1
5	544	3-VALVE STATION LABEL DECAL	1
6	547	CONVEYOR BELT ALIGNMENT DECAL	2
7	548	MAINTENANCE INSTRUCTION DECAL	2
8	550	DOT REFLECTOR	4
9	551.26	3240 MERGER HOSE DECAL	2
10	553	UNFOLDING MECHANISM CRUSH POINT DECAL	2
11	554	3240 CONVEYOR BELT ADJUSTMENT DECAL	2
12	567	3240 INDIVIDUAL HEADER LIFT DECAL	3
13	584	MARTIN 3240 DECAL	3



11

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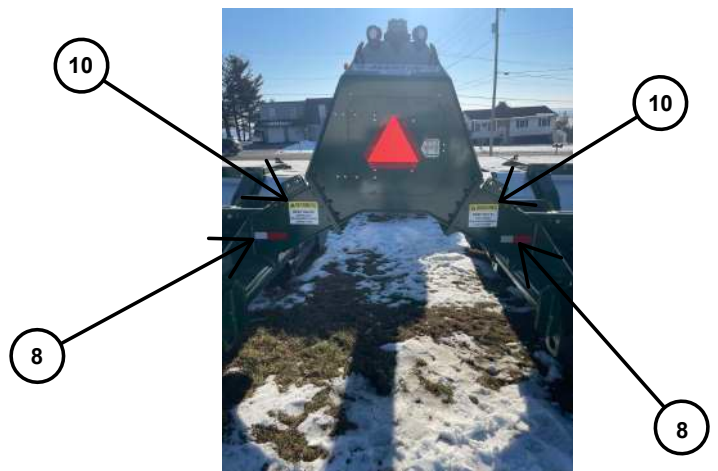


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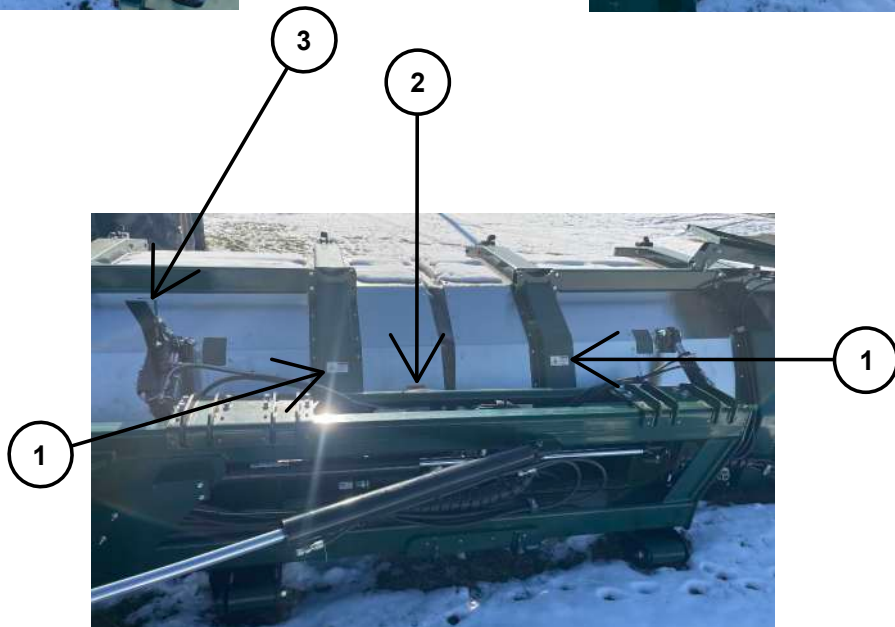
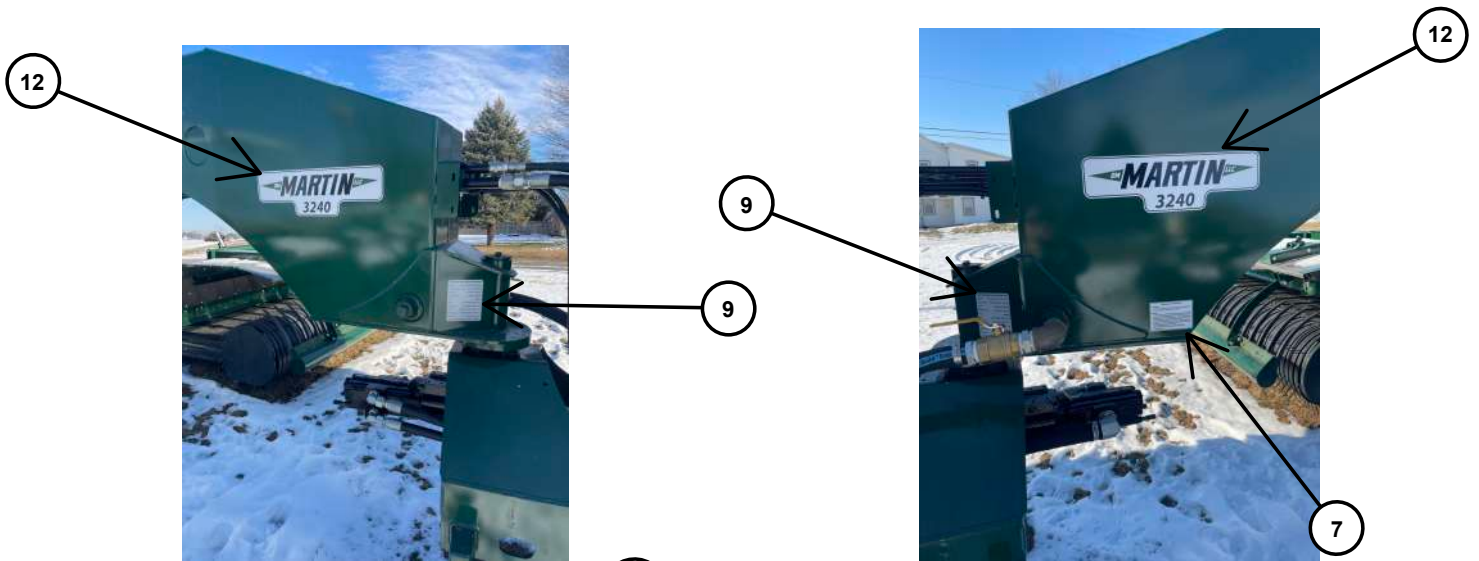
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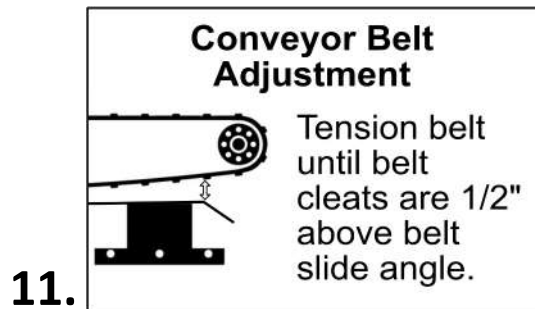
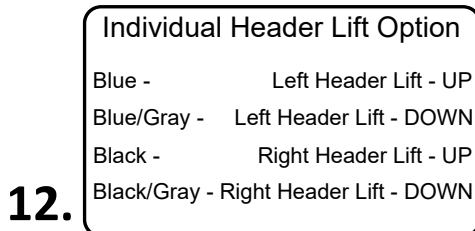
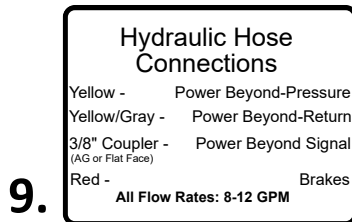
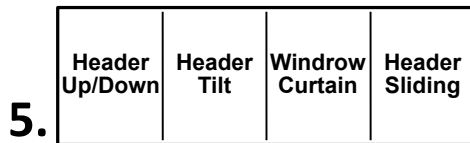
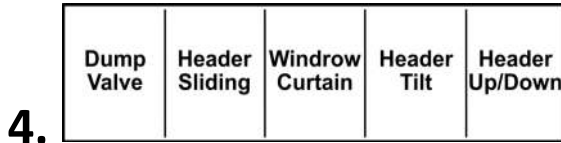
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8

Decals



Decals



Specifications

Transport Dimensions

Transport Width: 11' 4" (depending on header tilt)

Transport Height: 13'

Weight: Approx. 23,000 lbs.

Transport Length: 26'

Tire Size: 560/60R22.5



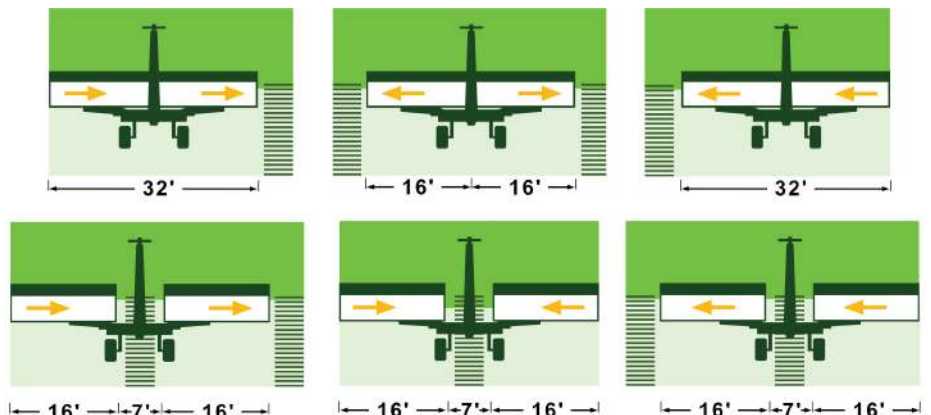
Tractor Requirements

- Minimum 20,000 lbs. Tractor Weight
- 15 GPM Hydraulic Pump
- Minimum 200 HP
- 2-point hitch, CAT 3
- 1-3/8" – 21 Spline, 1000 RPM PTO
- Requires Power Beyond System
- 2 Hydraulic Remotes
- 7-pin Round Electrical Socket w/ 20-amp Fused Center Pin
- For Hydraulic Drum Brake Option: Brake Valve or an additional remote

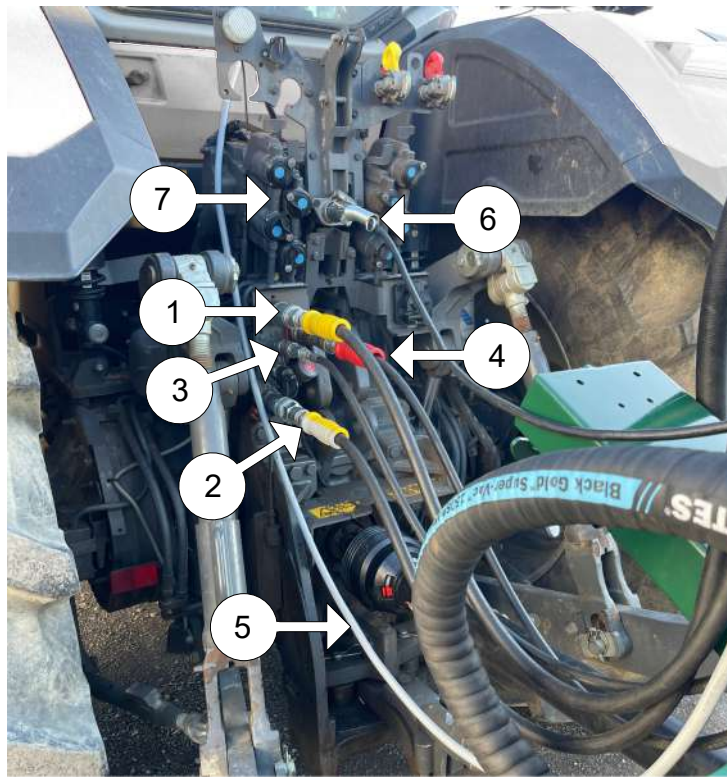


Operations

- 32-39 ft. working width
- 2 - 16' ft. sliding flex headers
- Center delivery or side delivery
- 42" Conveyor Belts
- Swing-out side curtains
- Hydraulic drum brakes



Tractor Connections



1. Yellow: Power Beyond Pressure
Tip: When disconnecting hoses, disconnect this one before the Power Beyond Return line. This will alleviate any residual pressure that may be in the lines.
2. Yellow/Gray: Power Beyond Return
3. No Grip: Load Sense Line
4. Red: Brake Line
5. Controller Cord
6. 7-Pin Electric Plug
7. If optioned with remote header sliding:
Blue: Left Header Lift
Blue/Gray: Left header Lift
Black: Right header Lift
Black/Gray: Left header Lift

WARNING: Do not slide headers while they are folded or folding/unfolding. Do not slide headers once they have been lowered to the ground. Damage to the machine may occur.

Transporting



When transporting, be sure the headers are completely folded and saddled. In addition, pins or bolts may be added in to lock the headers in place (indicated by arrows). **Failure to do this may result in damage to the machine as well as property.**

ATTENTION!!!

IT IS EXTREMELY IMPORTANT THAT THE CONTROLLER BE TURNED OFF FOR TRANSPORTATION. THIS WILL HELP ELIMINATE ACCIDENTAL UNFOLDING OF HEADERS DURING TRANSPORTATION!!!



When transporting, it is also important that the headers are tilted all the way up for minimum transport width. (See also header lift page.) **Failure to do this may result in damage to the machine as well as property.**

Operations

Operating width: 32-39 ft.

1. Set 2-point hitch to 32" off the ground for optimal machine operating angle.



2. Position tractor and merger in the field with clearance enough so safely unfold headers.

WARNING

Be sure to unfold headers FIRST before operating any other hydraulics on the machine (except for brakes).



3. Set headers either together for side delivery or apart for center delivery then lower headers to the ground. **DO NOT ATTEMPT TO SLIDE HEADERS IN OR OUT ONCE THEY HAVE BEEN LOWERED TO THE GROUND AS THIS MAY RESULT IN DAMAGE TO THE MACHINE.**



4. For best windrows, lower windrow curtain during side delivery. ALWAYS be sure there is enough clearance around the machine before unfolding the curtain(s).

5. As a rule of thumb, start a crop with a 750 RPM PTO speed and header tilt set at 2-3. Heavier crops require a faster PTO speed like 900-950 RPM, While light crops require a slower speed of 600-700 RPM. Pickup is best when running full or close to full, so a lower PTO speed may do the best pickup in a fine, thin, or short-stemmed crop.

TIP: For untended or unconditioned crop, merge field at an angle from the direction that the crop is laying. This will help prevent crop from lodging between the pickup bands. Some crops will require tedding or conditioning for merger to work properly.



Controller



1. ON/OFF Switch **CONTROL BOX MUST BE TURNED OFF BEFORE TRANSPORTING THE MERGER ON THE ROAD!!!**

2. Skid Shoe Height - Adjusts pickup clearance of the ground.

3. Lift Time +/-: This switch adjusts the amount of time the headers will lift when the "Auto Header Lift" function is activated. Each "click" in either direction adjust the time of lift by 1/2 of a second.

4. Belt Auto/Continuous Run Switch - This switch toggles between the belts continuing to run after the "Auto Header Lift" function has been activated and the belts stopping once the "Auto Header Lift" function is activated. For belt stop timing adjustment, see "Control Panel" page.

5. Belt Direction Joystick - Choose direction of your belts

6. Header Slide Switches - Slide your headers apart or together for center or side delivery

7. Windrow Curtain Switches - for your left and right windrow curtains

8. Header Lift/Lower/Float Switches: These switches are for your individual headers. The "A" side of the switch (when pressed) will lock into place. The "B" side of the switch must be held down for function. Once released, the switch will return to the "Neutral" position. To unfold/lower headers, press the "A" side of the switches. The headers will unfold completely and lower to the ground. Once on the ground they will be in the "Float" position (indicated by the amber lights on the switches). To toggle them off of "Float", press the "B" side of the switch but do not hold. This will put the switch in the neutral position.

"Auto Header Lift" - to activate the auto header lift function the Header Lift/Lower/Float switches must be in the Float position. Give a quick press on the "B" position and the headers will lift for the time set by the "Lift Time" switch (3). To lower the headers again toggle the switch to the "A" or "Float" position and the headers will lower to the ground.

Skid Shoe Adjustment



High Pickup Height



Low Pickup Height

As a rule of thumb, start a field in the 2-3 position and make adjustments as needed from there.

Crop Guard



High Setting

The high setting is for fluffy and bulky crops such as dry hay or straw.



Low Setting

The low setting is for a thin, fine, and/or short stemmed crop.

Auto Belt Stop Adjustment



When the **AUTO STOP/CONT RUN** switch is set to Auto Stop, the belt will pause when the head is lifted using the *Header Auto-Lift Timer* and resumes when the head is put back into Down.

Moving the **JOYSTICK** will cancel the *Auto Belt Stop*.

An exception to the pause is if the head is slid together, the Receiving (down-stream) belt will not pause. This allows momentary lift to clear an obstruction without causing a jam.

Pause Timer is set with “**VR1**” (Blue Dial on the PCB). Scaled 0 – 5 seconds.

Resume Timer is set with “**VR2**” (Blue Dial on the PCB). Scaled 0 – 15 seconds.

Maintenance Instructions

The maintenance schedule decal is located on the LH side of the hydraulic reservoir above the 2-point hitch.

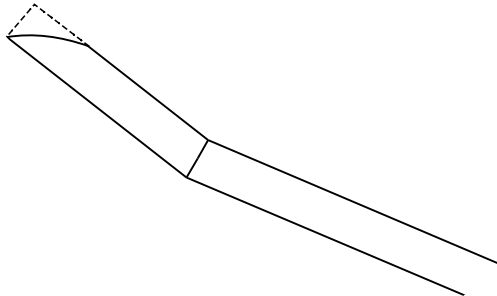
Grease:

- Some grease fittings are to be greased every 50 operating hours and some are to be greased every 250 hours or once a year. See the "Grease Points" Diagram.
- Check wheel hub oil weekly, 85-140 gear oil.
- Our end-of-season recommendation is that the conveyor belts be taken apart and cleaned, the whole unit be pressure washed, and all joints and bearings be greased. Only while the belts are off can the header flex pins be greased. Always grease the machine after pressure washing to displace water from joints and bearings.

Pickup Teeth Wear



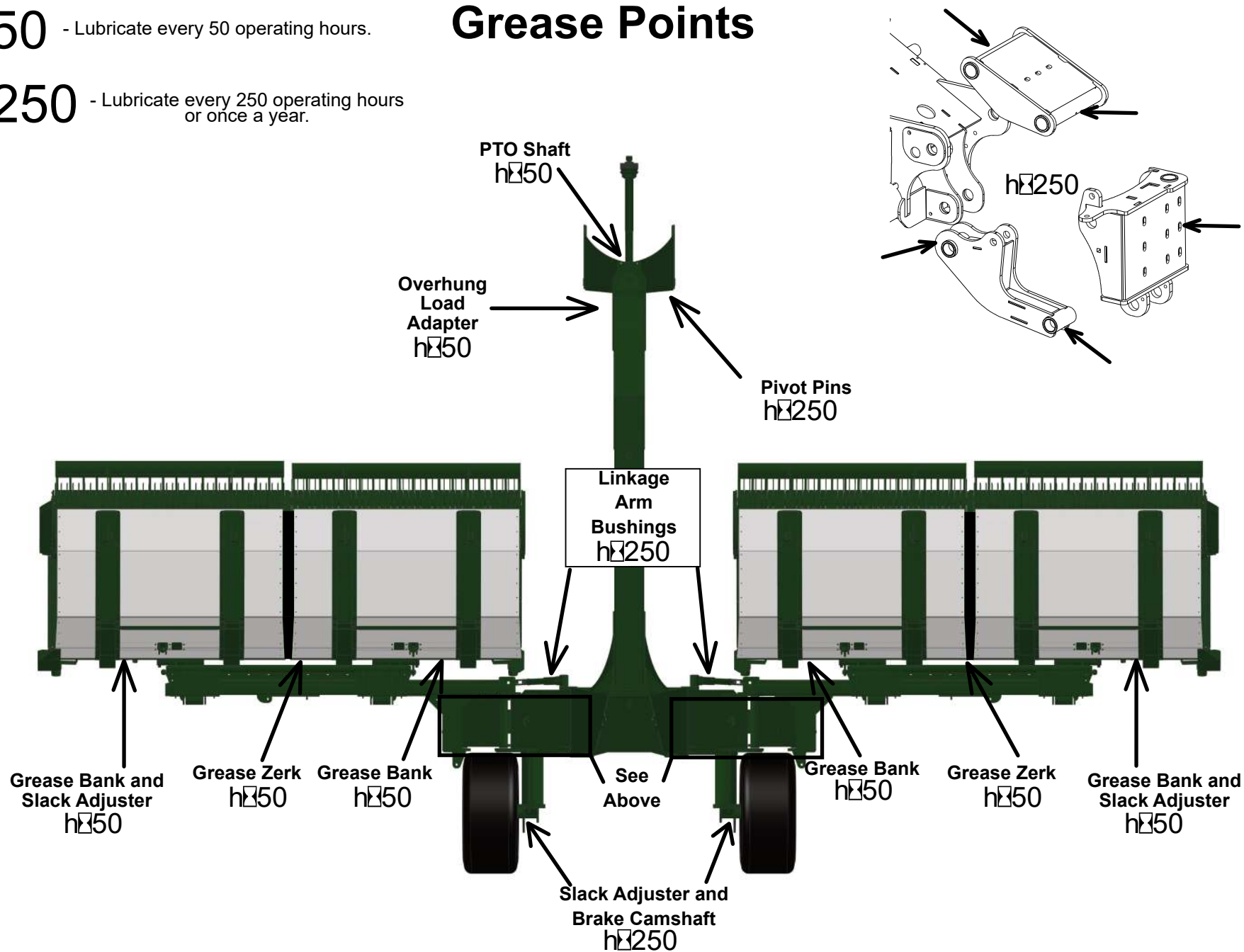
Pickup teeth need to be changed out when the flat spot on the end of the tooth is worn off.



h50 - Lubricate every 50 operating hours.

h250 - Lubricate every 250 operating hours
or once a year.

Grease Points



Conveyor Belt Maintenance Instructions

If operating in a fine, dry crop such as corn fodder or straw, or in conditions where crop has been contaminated by dirt from tedding operations, as well as at the end of season, it may be necessary to remove the conveyor belts and remove all debris from rollers and conveyor frame with compressed air.

To remove:

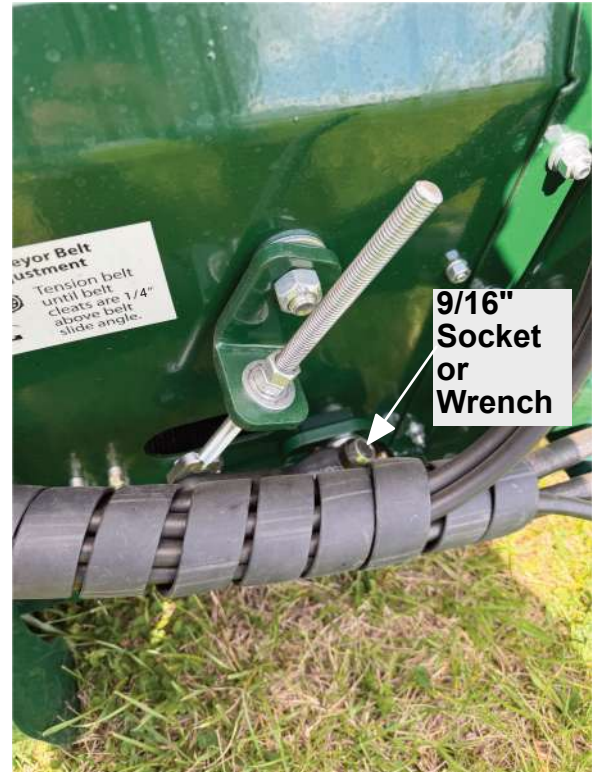
- Unfold merger, slide headers to the outermost position, and lower them to the ground.
- Turn belt so joint is at the outer end of the conveyor for easy access.
- Loosen the nut on the tensioner rod located on the back of the conveyor . **DO NOT loosen the nuts on the alignment tab. (see next page)**
- Push outer conveyor roller toward the center of the machine by means of a rubber hammer or wood block to loosen the belt.
- Remove bolts from lacer plates and slide the belt on the top of the conveyor towards the center of the machine to expose the rollers and conveyor frame. In this way, all dirt can be blown out without removing the belt from the bottom of the conveyor frame.

Belt Adjustment



Belt Alignment

This is to adjust the alignment of the conveyor belt to keep it tracking straight. The picture above is the right side header. To make the belt track more toward to the front of the header, loosen nut "A" and tighten nut "B". Retighten nut "A" once the belt has been properly aligned. To make the belt track more toward the back of the header, loosen nut "A" and then loosen nut "B" until the belt is tracking properly. Retighten nut "A" when finished. **DO NOT USE ALIGNMENT ROD IN AN ATTEMPT TO TENSION THE BELT.**



Belt Tensioning

To put more tension on the belt, loosen the top nut on the tensioner link, then tighten the lower one until the proper tension has been achieved, then retighten the top nut. To loosen tension on the belt, loosen top nut on the threaded rod, then loosen the bottom nut until the proper tension has been reached. Then tighten both nuts to hold the tensioner link in place.

To reset the slack adjuster, loosen the two nuts on the tensioner link, then use a socket to turn the slack adjuster back. (Shown Above)



NOTICE: The bulge shown in this picture indicates the belt is out of alignment and that the rib on the underside of the belt has slipped out of the groove in the roller.

Hydraulics

- Use AW-46MV Hydraulic fluid.
- Oil level should be in the sight glass
- Hydraulic oil is added through the cap on top of reservoir
- 140 Gallon reservoir

Hydraulic Fluid Shut-Off Valve:

On the LH side of the merger, beside the reservoir, there is a Hydraulic Fluid Shut-Off Valve for the Self-Contained Hydraulic Oil System. In the event of a hydraulic hose rupture, this quarter-turn valve can be shut to prevent oil from draining and completely emptying the reservoir. Once the rupture has been repaired, **THIS VALVE MUST BE REOPENED BEFORE OPERATION OF MACHINE CAN CONTINUE. FAILURE TO DO THIS CAN RESULT IT SEVERE DAMAGE TO THE HYDRAULIC PUMP.**

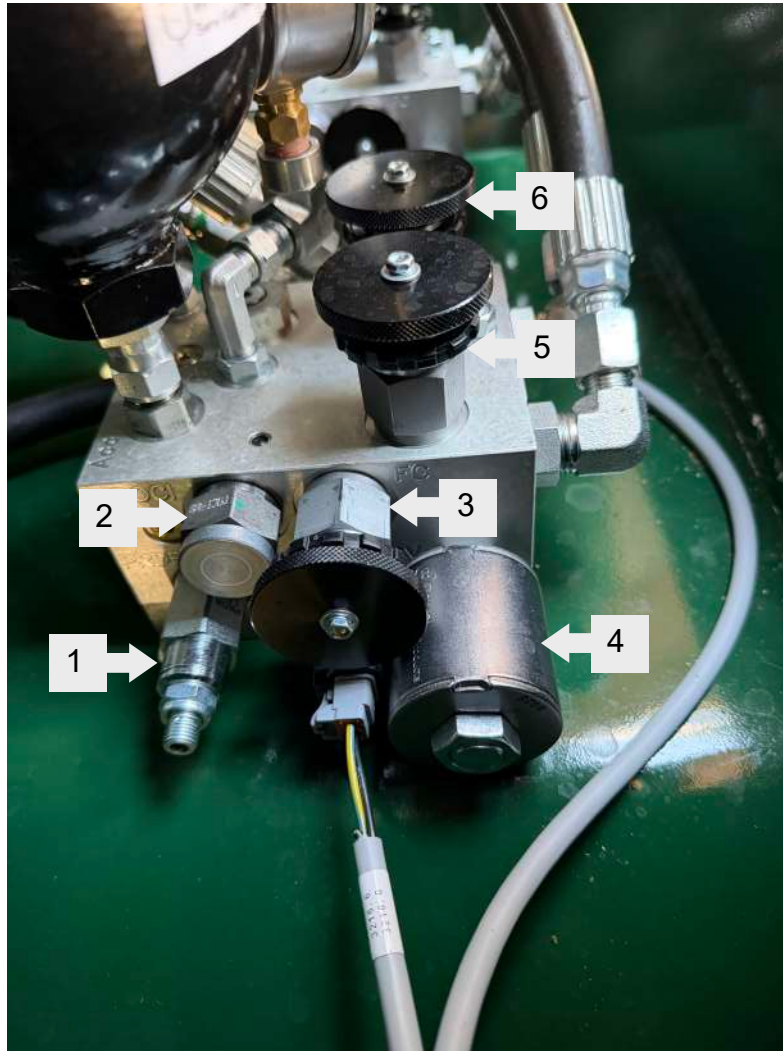
Hydraulic Oil Filter:

It is recommended that you change the oil filter every 500 operating hours.

Date Changed:



Folding/Unfolding Control Valves



1. Direct Acting, Pressure Reducing/Relieving Valve: Controls header float pressure. This pressure is displayed on the gauge. Each side is separate.

2. Pilot Operated Check Valve

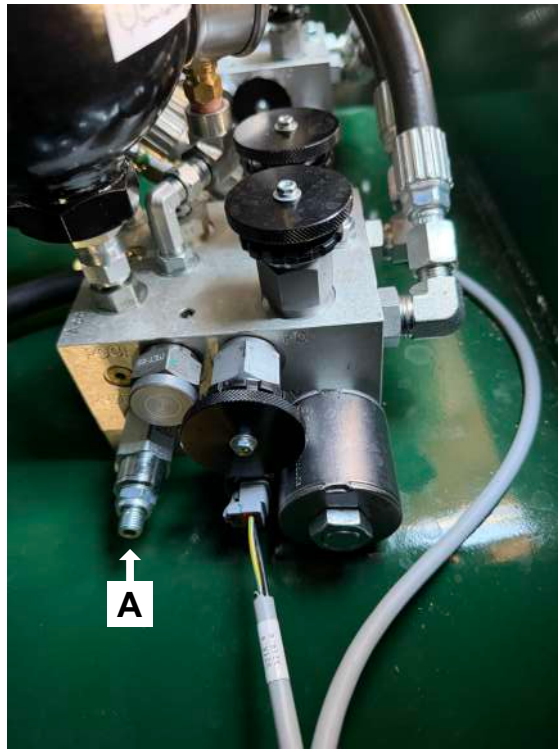
3. Stow Speed Control

4. Stow Speed Solenoid Valve

5. Port A: Controls unfold/down speed

6. Port B: Controls fold/up speed

Header Float Pressure Adjustment



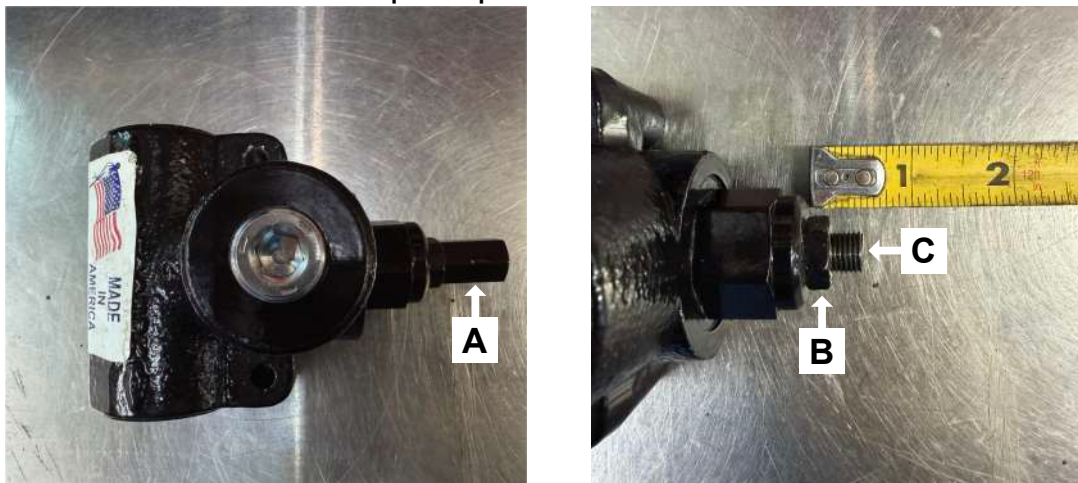
1. Unfold your headers and set them on the ground.
2. The pressure on the gauge should read 900-1050 psi.
3. To adjust the pressure, loosen the lock nut on the valve (A). To raise the pressure, turn the threaded stem in, to lower the pressure, turn the threaded stem out. Once adjusted re-tighten the lock nut.
4. To double check adjustment, fold the headers to the saddled position then unfold them and place on the ground again. Check the pressure again.

NOTICE: If you set the pressure higher, you will have less skid shoe wear, however your headers will not respond as well to sudden drops in terrain. If you set the pressure lower, you will have more skid shoe wear, however your headers will respond better to sudden drops in terrain.

Relief Valve



The relief valve on the flow divider adjusts the pressure level allowed to the pickup motors.



Adjusting the Relief Valve: To set the relief valve, take the valve cap off (A). Loosen the jam nut (B) and with an Allen wrench, adjust the valve until the threaded stem measures 1/2" from the top of the valve (as shown above). Once set, tighten the jam nut and put the valve cap on.



When adjusting the relief valve, the header should be either completely folded and saddled or it should be resting on the ground. Failure to do this may cause serious injury or death.

TIGHTEN HYDRAULIC FITTINGS



CAUTION:

Escaping fluid under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Keep hands and body away from pin holes and nozzles which eject fluids under high pressure. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

Tightening Flare Type Fittings*

1. Check flare and flare seat for defects that might cause leakage.
2. Align hose end with fitting before tightening.
3. Lubricate connection and hand tighten swivel nut until snug.
4. To prevent twisting the hose, use two wrenches.
Place one wrench on the hose end body and with the second wrench, tighten the swivel nut to the torque shown in this chart.

* Torque values shown are based on lubricated connections as in reassembly.

Tube Size OD	Nut Size Across Flats	Torque Value*		Recommended Turns To Tighten (After Finger Tightening)	
		(Nm)	(lb-ft)	(Flats)	(Turns)
3/16	7/16	8	6	1	1/6
1/4	9/16	12	9	1	1/6
5/16	5/8	16	12	1	1/6
3/8	11/16	24	18	1	1/6
1/2	7/8	46	34	1	1/6
5/8	1	62	46	1	1/6
3/4	1-1/4	102	75	3/4	1/8
7/8	1-3/8	122	90	3/4	1/8

TIGHTEN HYDRAULIC FITTINGS continued....

Tightening O-Ring Fittings*

1. Inspect O-ring and seat for dirt or obvious defects.
2. On angle fittings, back the locknut off until washer bottoms out at top of groove.
3. Hand tighten fitting until backup washer or washer face (if straight fitting) bottoms on face and O-ring is seated.
4. Position angle fittings by unscrewing no more than one turn.
5. Tighten straight fittings to torque shown.

* Torque values shown are based on lubricated connections as in reassembly.

Thread Size (In.)	Nut Size Across Flats (In.)	Torque Value*		Recommended Turns To Tighten (After Finger Tightening)	
		(Nm)	(lb-ft)	(Flats)	(Turns)
3/8	1/2	8	6	2	1/3
7/16	9/16	12	9	2	1/3
1/2	5/8	16	12	2	1/3
9/16	11/16	24	18	2	1/3
3/4	7/8	46	34	2	1/3
7/8	1	62	46	1-1/2	1/4
1-1/16	1-1/4	102	75	1	1/6
1-3/16	1-3/8	122	90	1	1/6
1-5/16	1-1/2	142	105	3/4	1/8
1-5/8	1-7/8	190	140	3/4	1/8
1-7/8	2-1/8	217	160	1/2	1/12

TORQUE SPECIFICATIONS

NOTE: Use these torque values when tightening hardware (excluding: locknuts and self-tapping, thread forming and sheet metal screw) unless specified otherwise.

All torque values are in lb-ft except those marked with an * which are lb-in (for metric torque value nm, multiply lb-ft value by 1.355 or lb-in value by 0.113).

Unified National Thread	Grade 2 		Grade 5 		Grade 8 	
	Dry	Lubed	Dry	Lubed	Dry	Lubed
8-32	19*	14*	30*	22*	41*	31*
8-36	20*	15*	31*	23*	43*	32*
10-24	27*	21*	43*	32*	60*	45*
10-32	31*	23*	49*	36*	68*	51*
1/4-20	66*	50*	9	75*	12	9
1/4-28	76*	56*	10	86*	14	10
5/16-18	11	9	17	13	25	18
5/16-24	12		19	14		20
3/8-16	20	15	30	23	45	35
3/8-24	23	17	35	25	50	
7/16-14	32	24	50	35	70	55
7/16-20	36	27	55	40	80	60
1/2-13	50	35	75	55	110	80
1/2-20	55	40	90	65	120	90
9/16-12	70	55	110	80	150	110
9/16-18	80	60	120	90	170	130
5/8-11	100	75	150	110	220	170
5/8-18	110	85	180	130	240	180
3/4-10	175	130	260	200	380	280
3/4-16	200	150	300	220	420	320
7/8-9	170	125	430	320	600	460
7/8-14	180	140	470	360	660	500
1-8	250	190	640	480	900	680
1-14	270	210	710	530	1000	740
Metric Course Thread	Grade 8.8 		Grade 10.9 		Grade 12.9 	
	Dry	Lubed	Dry	Lubed	Dry	Lubed
M6-1	8	6	11	8	13.5	10
M8-1.25	19	14	27	20	32.5	24
M10-1.5	37.5	28	53	39	64	47
M12-1.75	65	48	91.5	67.5	111.5	82
M14-2	103.5	76.5	145.5	108	176.5	131
M16-2	158.5	117.5	223.5	165.5	271	200

Wheels, Tires and Brakes

Wheels and Tires

Alliance Radial & Bias Tires or Nokian High Speed Tires:

- 560/60R22.5
- 58 PSI
- Check tire pressure daily.
- Check wheel lug nuts daily for the first 100 hrs. and then weekly after that. (500-550 ft.-lbs.)

Brakes

Adjustment:

1. Make sure the hydraulic cylinder (1) is completely retracted.
2. Tighten nut (2) until brake shoes are against drum, then loosen nut a half turn.



Important Safety Notice

Appropriate service methods and repair procedures are essential for the safe, reliable operation of all running gear as well as the personal safety of the individual doing the work. This manual provides general directions for performing service and repair work with tested, effective techniques. Following these guidelines will help assure reliability.

There are numerous variations in procedures, techniques, tools, parts for servicing axles, as well as in the skill of the individual doing the work. This manual cannot possibly anticipate all such variations and provide advice or cautions as to each. Anyone who departs from the instructions provided in this manual must first establish that they neither compromise their personal safety nor the vehicle integrity by their choice of methods, tools, or parts.



CAUTION

This is the safety alert symbol. It is used to alert you to potential injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

AXLE MAINTENANCE

Oil Lubrication

Oil should be changed at least once a year, or 100,000 miles, or whenever the seals or brakes are replaced. Oil level should be inspected every 1,000 miles. Always allow a few minutes, after adding oil or after vehicle operation, for the oil to settle when establishing the required oil level.

Adjustment

1. After properly installing the bearings and seals according to the manufacturer's recommendations, tighten the inner spindle nut to **100 Ft. Lbs.** while rotating the hub to ensure proper seating of the bearings, cups and seal in the wheel hub.

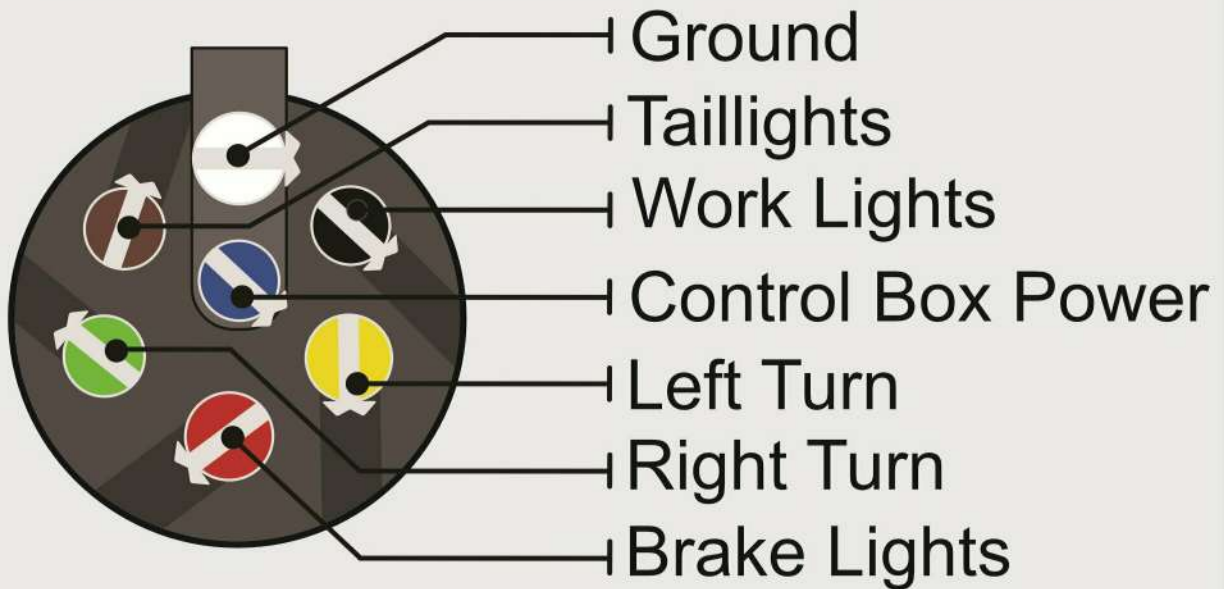
CAUTION

You must follow the maintenance procedures to prevent damage to important structural components. Damage to certain structural components such as wheel bearings can cause the wheel end to come off of the axle. Loss of a wheel end while the trailer is moving can cause you to lose control and lead to an accident, which can result in serious injury or death.

2. Install spring steel retainer snap ring into keyway in end of spindle, and engage teeth on the ring with the internal notches of the spindle nut.

ELECTRICAL PLUG

Back View of 7 Round Pin



NOTES