

Massey Ferguson®
9250
DynaFlex Draper Header

SERVICE MANUAL
4283402M2

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**9250
DynaFlex Draper Header**

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4283402M2**

02 - General Information

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GENERAL INFORMATION

INTRODUCTION

The information contained in this manual covers service information for the DynaFlex™ Header.

The header operator's manual as well as the machine operator's manual must be kept at hand for reference at all times.

Units of Measurement

Measurements are given in metric units followed by the equivalent in U.S. units. Hardware sizes are given in millimeters for metric hardware and inches for U.S. hardware.

Replacement Parts

To receive efficient service, always give the following information:

- Correct part description or part number.
- Model number of the machine.
- Serial number of the machine.

Machine Identification

FIG. 1: Each machine is identified by type and serial number on the serial number plate (1). The serial number plate on the header is located to the left of the combine interface.

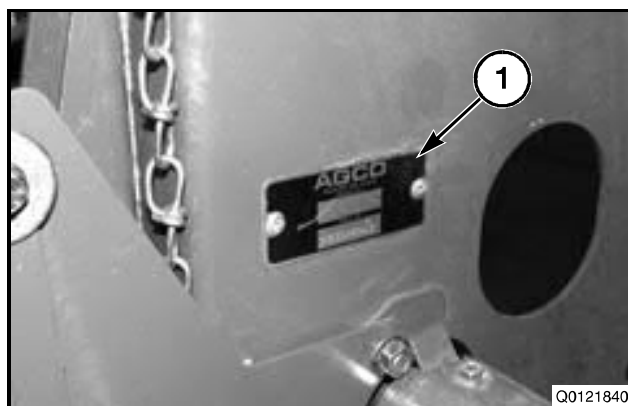


FIG. 1

General Information

Header/Machine Usage

General

All models are equipped with hydrostatic reel drive.

The header is equipped with a flexible cutterbar and Automatic Header Height Control (AHHC).

As a Flex Draper, the four or six sensors (potentiometers) installed on each end and throughout the center of the header are specifically designed to operate with the AHHC control module installed in the machine.

As a Rigid Draper, the tilt arms are locked up and drag rods with sensors are located at each end of the header.

The header is recommended for use in beans, peas, cereal grains, and low bearing crops and can be used with the cutterbar locked up or in the float position depending on the application.

OPERATION

Checklists

Daily

- Perform the service items due as given in the Lubrication Chart in the Lubrication and Maintenance section. Visually inspect all lubrication points to make sure lubrication is being received.
- Check for damage and excessive wear of parts. Make a general inspection of nuts, bolts, and other fasteners to make sure the fasteners are tight. See Bolt Torque Values in the Lubrication and Maintenance section for general bolt torques.
- Check all hydraulic lines and connections for leaks. See Maintenance in the Safety division for proper procedures to check for hydraulic leaks.
- Make sure the reel is level, the reel lift cylinders are in phase, and the tension of the reel drive chain is correct. See the Adjustments section.
- Check the condition of the drapers, the draper tension, and draper tracking. See the Adjustments section.
- Make sure all shields and guards are in position and the fasteners are tight. Replace any shields and guards that are missing or damaged.
- Make sure all safety signs are in the correct position and can be read. Replace any safety signs that are missing or damaged. See Safety Sign Location in the Safety division.
- Make sure all flashing amber warning lamps work correctly.
- Check the header to machine connections for security and operation of controls. See connecting the Header to the machine in this section.
- Make sure the correct operating adjustments have been made for your crop.
- Remove all crop debris from the machine and wipe off any oil or dirt at the end of the day.

Before Each Season

- Read the Safety section.
- Check to make sure the drapers are not stuck to the conveyor frame members. The draper must be free to rotate across the conveyor frame members before operation. If necessary, use pliers to carefully pull the draper away from the conveyor frame members.
- If any hydraulic components have been changed, the machine hydraulic system oil filter must be changed after no more than 50 hours of operation.
- So all items on the Daily Checklist.
- Set the tension of the drapers. See the Adjustments, section.

- With the machine operating in a stationary position, have another person watch the operation of moving parts. Watch for any signs of faulty operation, overheated bearings, and listen for any sounds that are not normal.

End of Season

- Replace any damaged or worn parts.
- Remove all crop debris from the machine. Crop debris will hold moisture and cause rust. Make sure to remove crop wrapped on a shaft and lodged against the bearings. Remove debris under draper belts.
- Wipe off any oil or dirt and wash the machine. Make sure to remove crop residue from the cutterbar.
- Store the machine in a dry sheltered place if possible. Lower the header onto suitable wooden blocks and release the header flotation.
- Release the draper tension. If the header is stored in an unsheltered area, remove the drapers and store in a cool dry area.
- Lubricate all grease fittings to force out any water or contaminate that is present. See Lubrication and Maintenance, Lubrication Details write-up.
- Brush a medium weight oil on the knife sections and the reel drive adjustment bolt.
- Paint any areas where paint has been damaged.

General Information

Variable Speed Drive Lockout

FIG. 2: Corn Header - The variable speed feature of this drive is used only with the corn header. The variable speed header drive can be very beneficial when harvesting corn by enabling the operator to match the corn header speed to the various field and operational conditions.

Grain Header - When operating the machine with a grain header, the variable speed header drive must be locked in the slowest position as shown to prevent over speeding of the header.

IMPORTANT: Over speeding will damage the grain header.

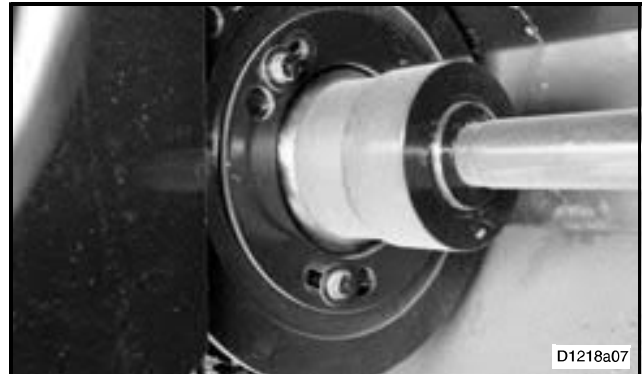


FIG. 2

FIG. 3: Lockout Position - When using a grain header, actuate the variable speed lockout by slowing the variable speed header drive to the slowest position.

The drive sheave on the pivot jackshaft must be out against the heads of the drive pins (1).

Loosen the three bolts (2) that fasten the lockout ring (3) to the sheave.

Rotate the ring clockwise as far as possible and tighten the bolts.

Be sure the lockout ring covers the heads of the drive pins, preventing inward movement of the sheave even if the speed change control switch in the operator's console is accidentally depressed.

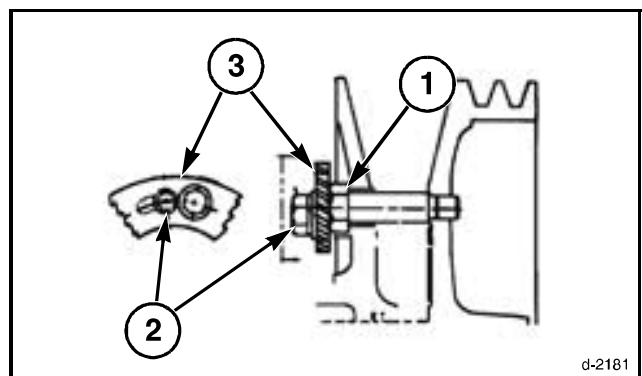


FIG. 3

Feeder Chain Speed

FIG. 4: The top feeder shaft (pivot) is belt driven from the bottom feeder shaft (countershaft).

Install the drive belt (1) on the small driven pivot sheave and on the large drive sheave (2).

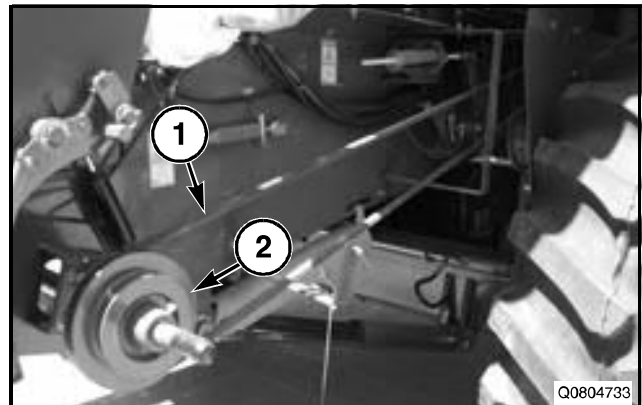


FIG. 4

Parking Stands

FIG. 5: The parking stands (1) are used to support the header when disconnecting the header from the machine. The stands hold the header in the correct position when removing and attaching the header to the machine.

Lower the header until the skid pads are contacting a level area on which to set the header. Remove the hairpin (2) and then the locking pin (3) from each parking stand. Lower the two parking stands to the level surface. Raise the parking stands to align the first set of locking holes available and install the locking pins. Secure the locking pin by inserting the hairpins.

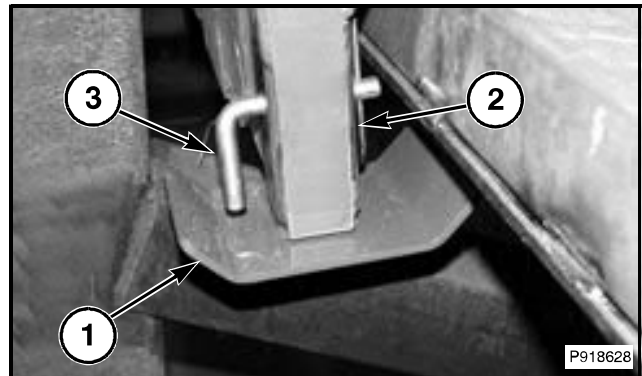


FIG. 5

Removing Header

FIG. 6: The parking stands (1) are used to support the header when disconnecting the header from the machine. The stands hold the header in the correct position when removing and attaching the header to the machine.

Lower the header until the skid pads are contacting a level area on which to set the header. Remove the hairpin and then the locking pin (2) from each parking stand. Lower the two parking stands to the level surface. Raise the parking stands to align the first set of locking holes available and install the locking pins. Secure the locking pins by inserting the hairpins.

Stop the engine, set the parking brake, and remove the start key.

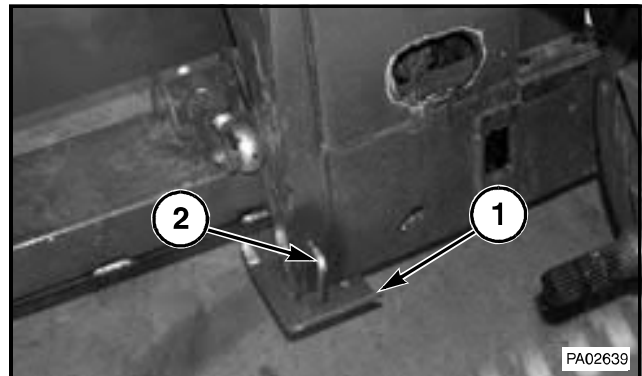


FIG. 6

FIG. 7: Slide the collar (1) to release the yoke on the driveline and then slide the driveline outward far enough to expose the end of the feed house drive shaft. Slide the yoke onto the driveline mount for storage. Repeat the procedure for the opposite driveline on dual Knife drive.

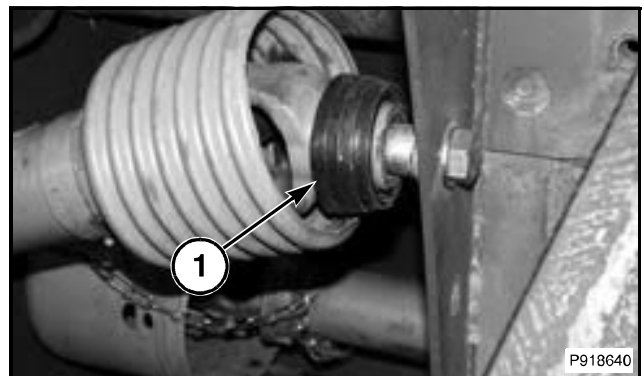


FIG. 7

FIG. 8: Disconnect the mobile single point connector (1) from the single point connector on the machine.

Put the connector into the couple storage bracket (2) when not in use.

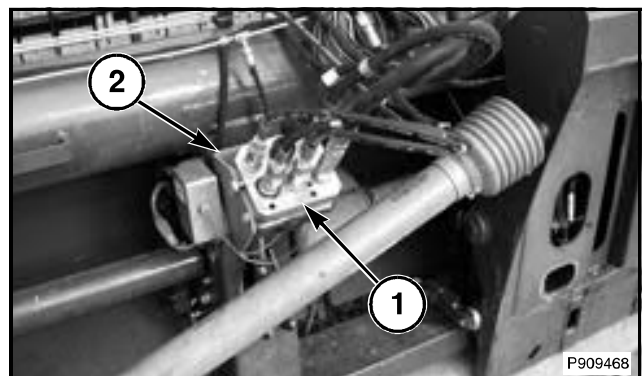


FIG. 8

General Information

FIG. 9: Transverse Machine - If a corn head is going to be attached to the machine, disconnect the reel lift quick coupler from the reel lift fitting (1). Connect the female quick coupler to the male coupler (2) for the header variable speed sheave. Install the dust cap (3) onto the reel lift fitting.

At the left-hand side of the pivot shaft move the lock out ring on the variable speed drive sheave to the unlocked position.

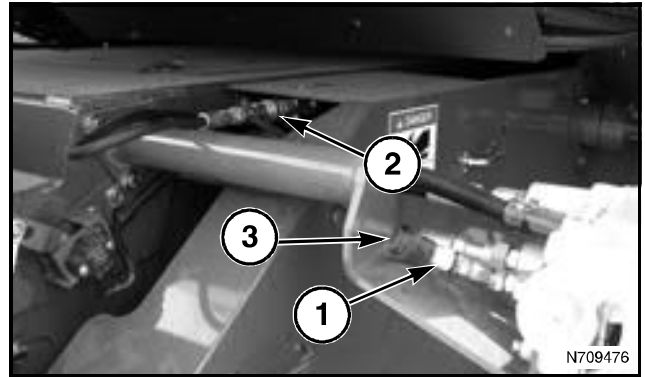


FIG. 9

FIG. 10: Axial Machine - If a corn head is going to be attached to the machine, disconnect the variable speed quick coupler from the hydraulic coupler (1). Connect the quick coupler (2) to the male coupler at the reel lift port in the main hydraulic valve. Install the dust cap (3) onto the hydraulic coupler.

At the right-hand side of the pivot shaft move the lock out ring on the variable speed drive sheave to the unlocked position.

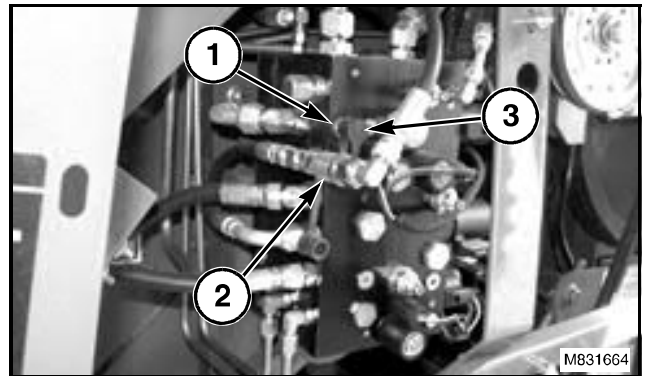


FIG. 10

FIG. 11: Install the socket of the tool over the hex stub (1) of the feed house latch linkage. Move the concave door tool rearward to unlock the feed house hooks from the header.

Start the engine and lower the header until the header disengages from the truss cradle on top of the feeder housing. Back the machine away from the header.

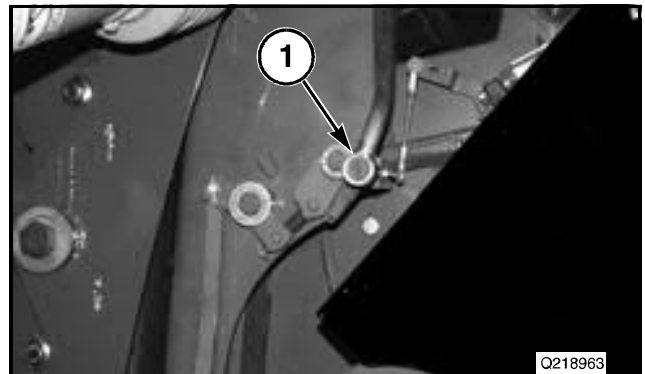


FIG. 11

Attaching Header

FIG. 12: Rotate the feeder housing latches (1) back into the feeder housing. Lower the feeder housing.

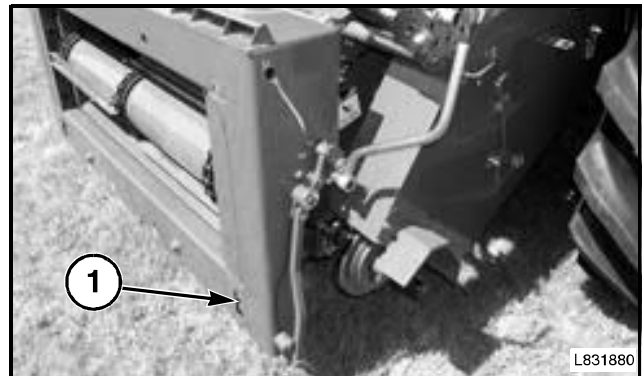


FIG. 12

FIG. 13: Align the left-hand front corner of the feeder housing with the left-hand guide flange (1) in the header opening. Drive the machine squarely into the header.

Raise the feeder housing, picking up the header and letting the lower pins enter the holes in the header back. Raise the header to full height and engage the header lift cylinder stop.



WARNING: Always follow this procedure to engage the header lift cylinder stop:

Raise the header to maximum height. Stop the engine, set the brake and remove the start key.

Position the cylinder stop over the lift cylinder rod. Start the engine and lower the header until the cylinder stop engages the front end of the lift cylinder barrel.

With the header lift cylinder stop engaged, again stop the engine, make sure the brake is set and remove the start key.



FIG. 13

FIG. 14: Install the tool (1) onto the latch crank and rotate the upper latch assembly counterclockwise to lock the hooks into the header. Make certain the latch is rotated over center to lock the hooks.

If the hooks do not latch, check that the lower pins are seated in the header back. If the lower pins are not seated, put a block under the left-hand end of the header and lower the header to reset the pins. Latch the hooks.

Remove the hairpins from the lockpins (2) holding the parking stands (3). Raise the parking stands all the way up into the header interface. Install the lock pins through the holes in the header interface and the parking stands.

Raise and lower the header against the ground multiple times before raising the header to full height and engaging the header lift cylinder stop. This lets the header completely settle in the feeder housing before aligning and connecting the header driveline.

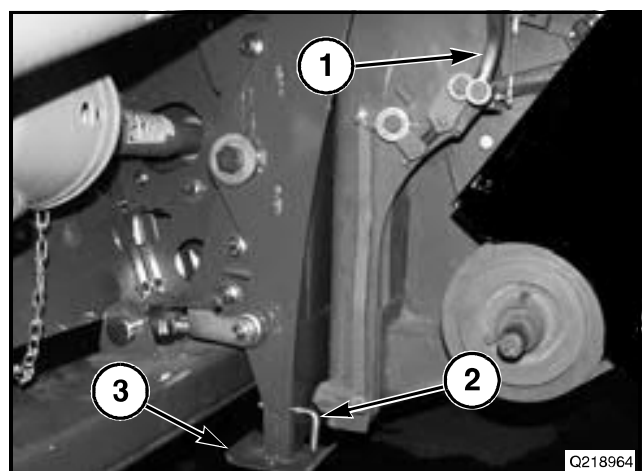


FIG. 14

General Information

FIG. 15: Slide the collar (1) to release the yoke and then slide the yoke from the driveline mount for storage. Repeat the procedure for the opposite driveline on dual knife drive.



FIG. 15

FIG. 16: Sickle Drive Timing (Dual Knife Drive) - The two sickles must be timed to run exactly opposite each other before connecting the drivelines to the countershaft of the feeder housing. Both sickles must reach the end of the stroke at the same time.

Rotate the left and the right drivelines (indicator wheels) so that the same letter is showing in the indicator windows (1) on the PTO bells.

IMPORTANT: If the sickle drives are out of time, excessive sickle drive noise and unusual header vibration will be experienced.

To set the Sickle Drive Timing of the main drive group, refer to the procedure found in the Adjustments section, Sickles Timing write-up.

FIG. 17: Slide the locking ring (3) back onto the yoke (2) at the end of the driveline (1).

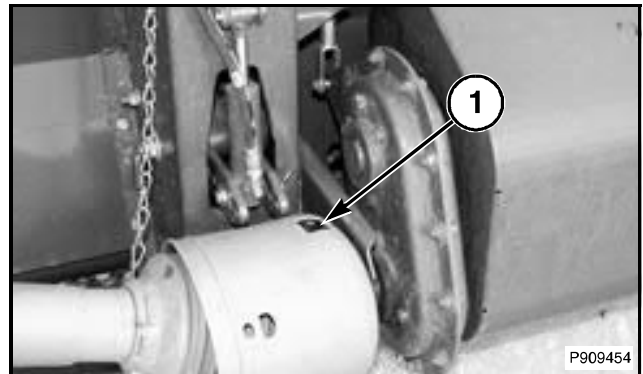


FIG. 16

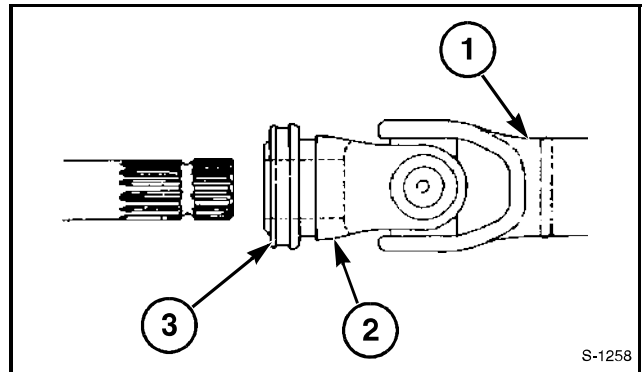


FIG. 17

FIG. 18: Install the driveline (1) onto the end of the countershaft in the feeder house.

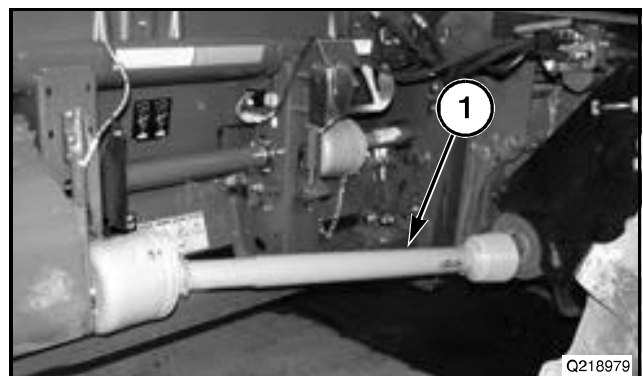


FIG. 18

FIG. 19: Release the locking ring and pull back and forth on the driveline to make sure that the coupling is locked in the annular groove (1) on the countershaft.

Repeat the procedure for the opposite driveline on dual knife drive.

IMPORTANT: Be sure that the same letter is showing in the indicator windows on the PTO bells after the installation of the left and the right drivelines.

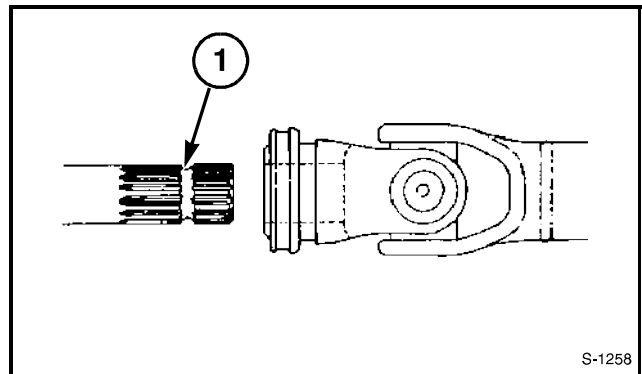


FIG. 19

FIG. 20: Transverse Machine - If a corn head has been attached, install the reel lift hose (1) onto the reel lift fitting (2) on the single point connector. Make sure the dust cap (3) is installed on the variable speed fitting.

Move the lockout ring on the variable speed drive sheave, on the left-hand side of the pivot shafts to the locked position.

IMPORTANT: When running the grain head, the variable speed header drive must be locked in the slowest position. Over speeding will damage the grain header.

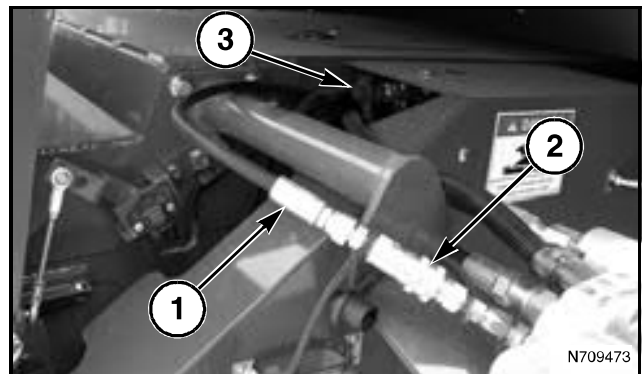


FIG. 20

FIG. 21: Axial Machine - If a corn head has been attached, install the variable speed hose (1) onto the male coupling fitting (2) in the main hydraulic control valve. Make sure the dust cap (3) is installed on the variable speed fitting (4) at the reel lift port.

Move the lockout ring on the variable speed drive sheave, on the right-hand side of the pivot shaft, to the locked position.

IMPORTANT: When running the grain head, the variable speed header drive must be locked in the slowest position. Over speeding will damage the grain header.

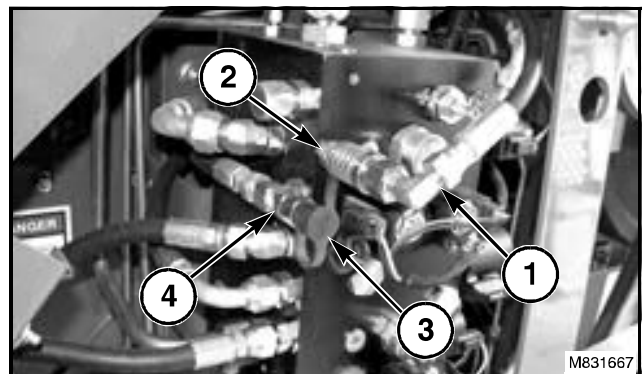


FIG. 21

FIG. 22: Connect the mobile single point connector (1) to the single point connector on the machine. Align the connectors and close the over-center latch locking the connectors together.

NOTE: To install the header on a machine without a single point connector, an adapter is needed.

Refer to the appropriate sections to set the proper cutter bar tilt for the drive tires used on the machine, level of the header, set the auger flighting clearance, draper pressure, and reel lift cylinder phasing.



WARNING: DO NOT operate the machine unless **ALL** shields are installed.

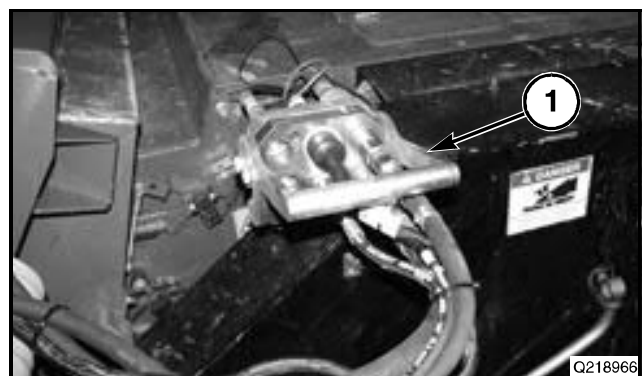


FIG. 22

General Information

Extremity Lights (Header)

FIG. 23: Header extremity lights (1) are factory installed on the right-hand and left-hand end of the header. The extremity lights are used to mark the ends of the header.

When harvesting, rotate the mounting tube (2) for the extremity lights inward.

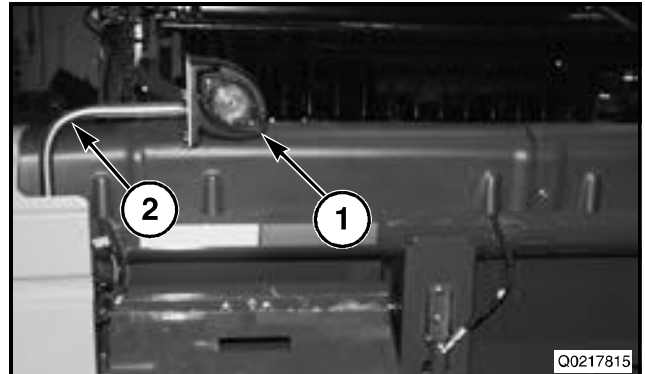


FIG. 23

FIG. 24: When transporting with the header installed on the machine, pivot the extremity lights (1) to the outside.

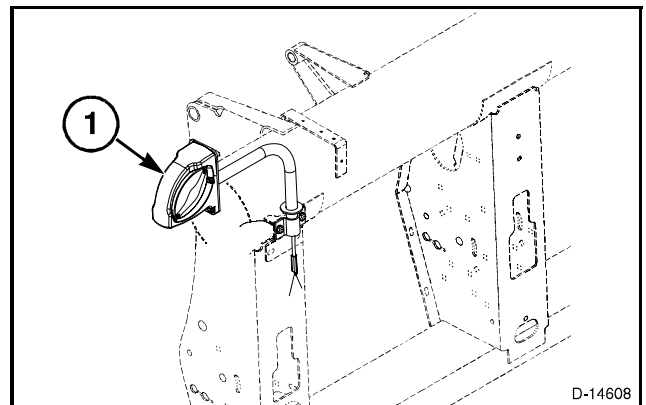


FIG. 24

Header Break-In

Check the reel drive chain for alignment and correct tension.

Lubricate the sickle with oil to aid initial break-in. If operating in extremely sandy or abrasive soil do not lubricate the sickle.

Watch for any signs, such as heating or noise, indicating faulty adjustment.

Draper Care

The drapers that are supplied with the header are made of a waterproof material designed for a long life with minimum maintenance.

Maintain proper draper tension while the header is operating. Release the draper tension at the end of each day or when the header will not to be used for an extended period of time.

Frequently check the drapers for abnormal wear and correct the cause immediately.

Keep the drapers as clean and dry as possible. Store in a cool, dry place away from rodents.

Oil spilled on drapers will cause rapid deterioration. Wipe off oil as soon as possible.

Unplugging the Header

If the header and the interface weldment jams or plugs:

NOTE: Refer to the Troubleshooting section to resolve specific functional problems.

1. Use the combine's header reverse to unplug the header and interface weldment. See the combine operator's manual to reverse the header. If reversing the header direction does not unplug the header, do the next step.
2. Stop the machine.
3. Disengage the header.
4. Lower the header and the reel.
5. Stop the engine and take the start key with you.
6. Clean the cutterbar and check for broken sickle sections and guards.
7. Clean the auger.
8. Resume operation when the cutterbar and the auger are operational.



WARNING: Do not attempt to manually unplug the machine with the header engaged and the engine running.

General Information

Reel Speed

A hydraulic motor that is driven by the combine operates the reel. The reel speed control knob on the control console controls this function. See the combine operator's manual for more information.

The correct reel speed setting will change with the ground speed. A higher ground speed requires the reel speed to increase. The reel speed is properly adjusted when the reel moves the crop slightly rearward just before the knife cuts the crop.

NOTE: For high ground speed harvesting above 11.26 kph (7.0 mph) a reel speed increase kit is available.

The reel speed is too slow if the reel pushes the uncut crop forward. The reel speed is also set too slow if the reel does not put the cut crop onto the drapers.

The reel speed is too fast if the reel holds an excessive amount of crop in the front of the knife. The reel speed is also set too fast if the reel does not release the cut crop onto the draper and carries the crop over the reel.

Draper Speed

The center draper and the left and right draper speeds are not adjustable.

Tine Replacement

FIG. 25: Remove the screw (1) clamping the tine (2) to the tine tube weldment (3).

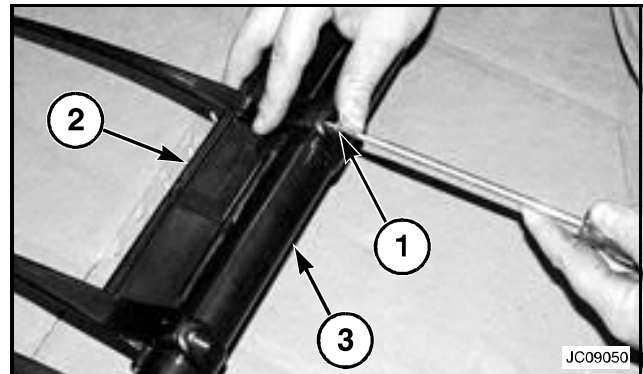


FIG. 25

FIG. 26: The molded tine incorporates a living hinge that allows the clamping section of the tine to be easily spread by hand and removed from the tine tube.



FIG. 26

Thank you very much for your reading. Please Click Here. Then Get COMPLETE MANUAL. NO WAITING



NOTE:

If there is no response to click on the link above, please download the PDF document first and then click on it.

FIG. 27: The tines interlock with the tine tube and the adjoining tines. Pull and rotate the tine slightly as shown to disengage the interlocks as the tine is removed.

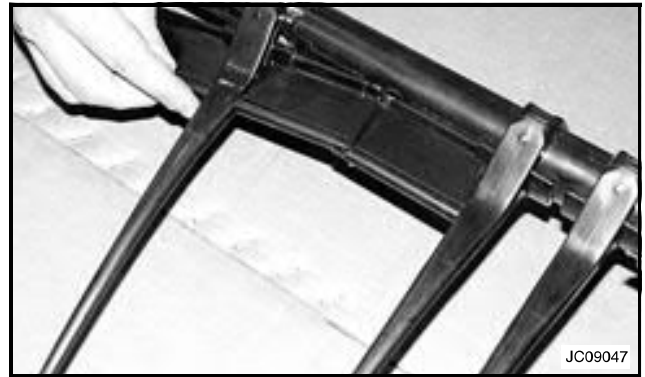


FIG. 27

FIG. 28: Tine interlocks.

- Tine and tine tube interlock (1)
- Tine to tine bat interlocks (2)

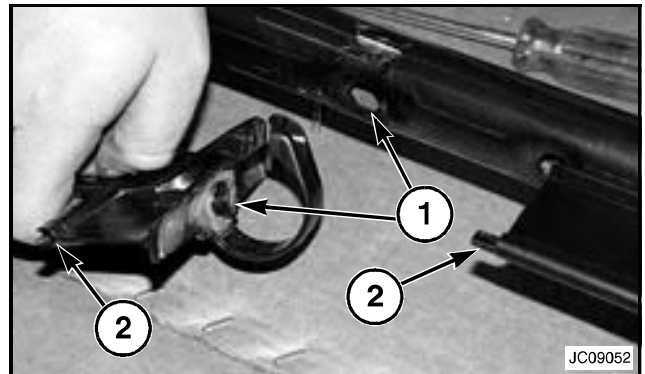


FIG. 28

FIG. 29: Position a new tine (1) onto the tine tube weldment (2) by opening the clamp of the tine and placing the tine over the tube.

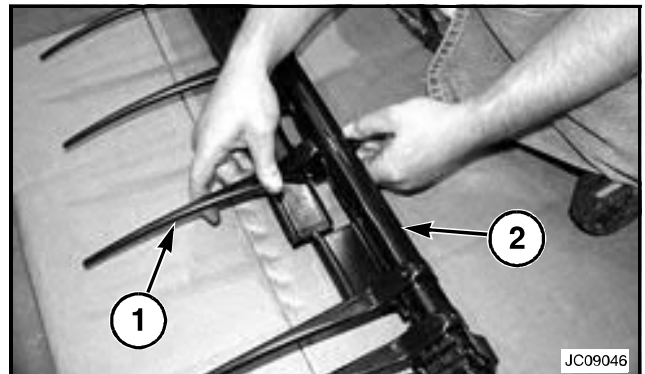


FIG. 29

FIG. 30: Rotate the tine slightly to engage the interlock of the left-hand side of the bat on the tine.



FIG. 30

General Information

FIG. 31: Rotate the tine back to seat the tine against the tine tube interlock and to engage the right-hand tine bat interlock.

Insert the screw (1) and tighten.

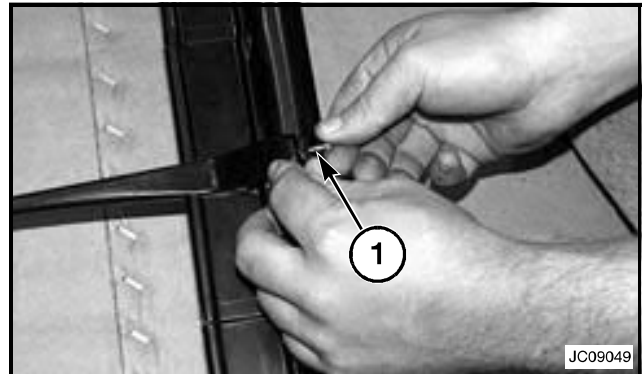


FIG. 31

Completing Packages

Closure Extensions - Transverse

FIG. 32: Extensions bolted into the opening of the interface weldment will need to be added if installing the header on a transverse model of a machine.

Install a left (1) and a right (2) extension into the opening of the interface weldment. Secure each extension with two full thread flange screws and top lock flange nuts to the left and the right feeder filler covers (3).

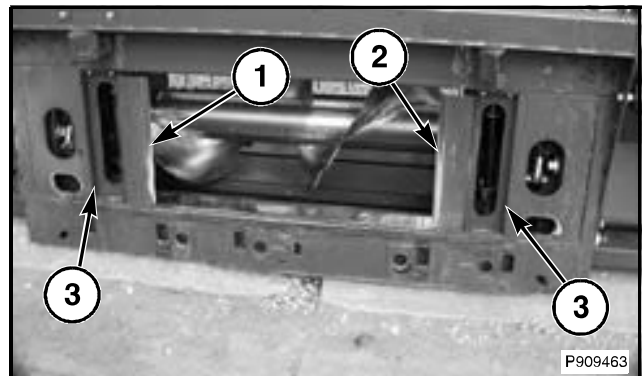


FIG. 32

Guides (Feeder House)

FIG. 33: The location of the guides (1) will need to be changed when installing the header onto an axial from a transverse machine.

Remove the four full thread flange screws securing each guide. Remove the guides from the interface weldment.

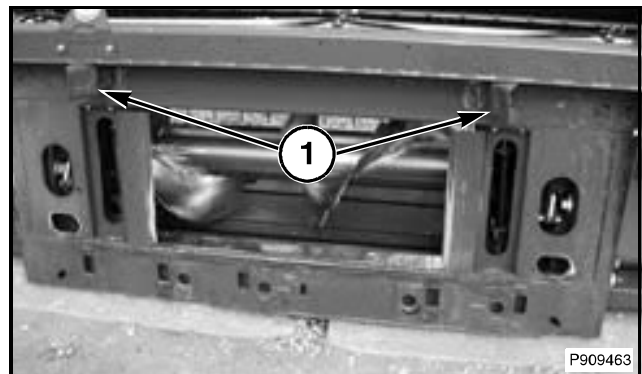


FIG. 33

General Information

FIG. 34: Locate the guides on the interface weldment. Install the four full thread flange screws securing each guide. Tighten the full thread flange screws.

Transverse Machine - Dimension (B) of 1197.0 mm (47.125 in) to the inside of the guide

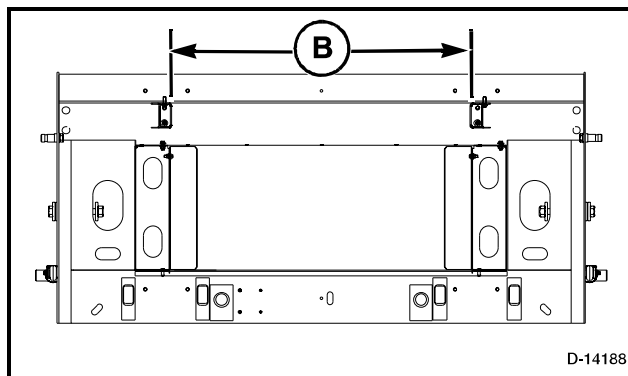


FIG. 34

FIG. 35: Locate the guides on the interface weldment. Install the four full thread flange screws securing each guide. Tighten the full thread flange screws.

Axial Machine - Dimension (A) of 1871.8 mm (73.693 in) to the inside of the guide.

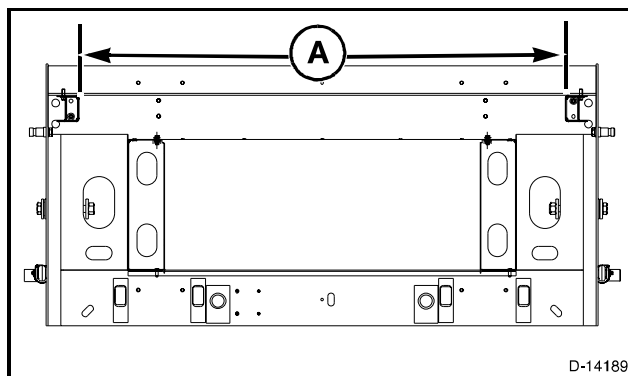


FIG. 35

PTO Drive Shafts

FIG. 36: The PTO drive shafts will need to be changed when installing the header onto an axial from a transverse machine. PTO drive shafts differ in length from knuckle to knuckle between axial and transverse machines.

Axial Machine - Dimension of 910.0 to 1282.0 mm (35.827 to 50.472 in) knuckle to knuckle.

Transverse Machine - Dimension of 1110.0 to 1582.0 mm (43.900 to 62.283 in) knuckle to knuckle.



FIG. 36