

Header Settings Guide

DynaFlex & Command Series



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DynaFlex Settings Guide Procedure

1. Ensure DynaFlex is field ready
2. Set to recommended pressure
3. Align end skid parallel to the ground
4. Confirm guard angle is acceptable and adjust if necessary
5. Set header height to recommended target height
6. Fine-tune automatic header height control system

Tilt Arm Pin Location



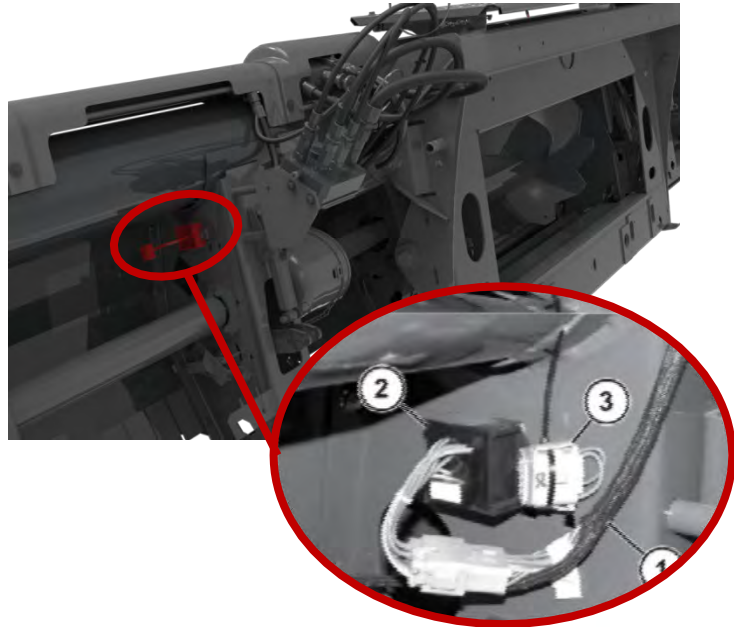
- Pins are located at the rear of the header on each of the vertical support beams. There are 16 total pins on a 40' DynaFlex header.
- Relocate the pins from the front hole to the rear location to allow the tilt arms to float.



Electrical Harness Connection

■ Flex Mode Operation

- To utilize the cutterbar potentiometers, connect the header main harness (1) to the header control module (2).

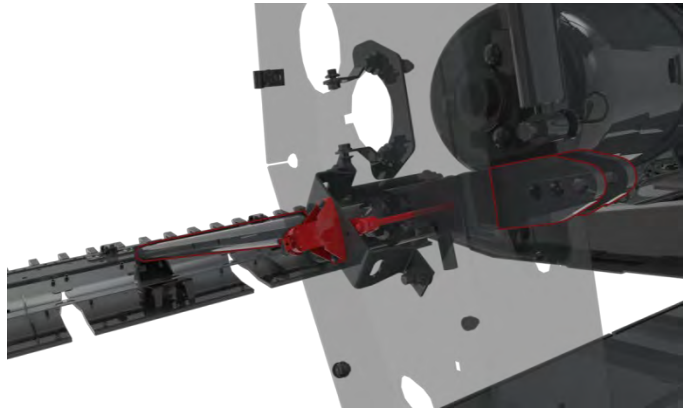


■ Rigid Mode Operation

- To utilize the drag rod potentiometers, connect the header main harness (1) to the jumper harness (3).

Electrical Harness Connection

- **Flex Mode Operation**
 - The potentiometer is connected to the tilt arm via a small armature rod. If the cutterbar encounters a change in contour, the tilt arm will move accordingly and change the voltage reading within the potentiometer. The header height control system's function is to maintain a target voltage reading and will raise or lower the header to achieve the target setting.



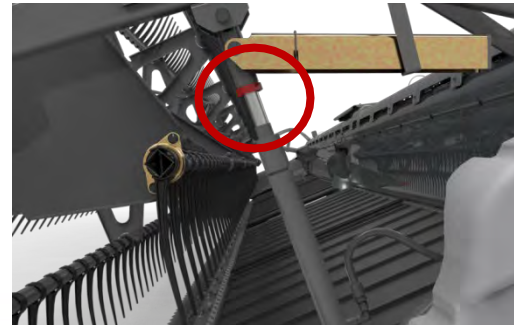
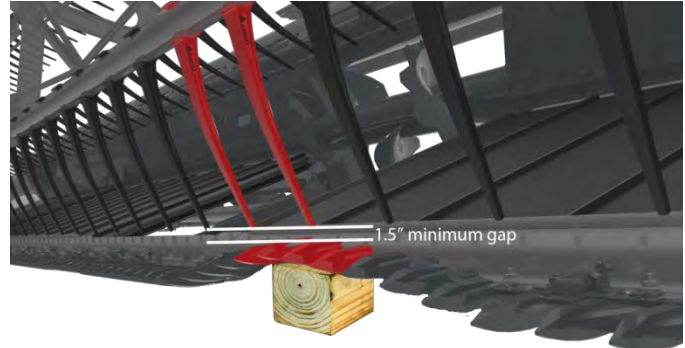
Electrical Harness Connection

- **Rigid Mode Operation**
 - The potentiometer is attached to a drag rod that hangs down on each end of the header. If the drag rod encounters a change in contour, the voltage reading will change in the potentiometer and the header height control system will react to maintain the target set height selected by the operator. Drag rods are most commonly used in small grains in Auto Tilt mode which automatically tilts the platform from side to side and the operator manually controls the header raise and lower.



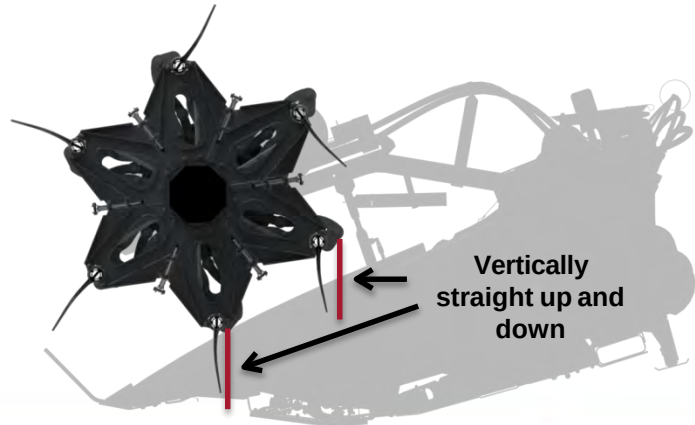
Reel Height Adjustment

- To correctly set the reel height, reduce the cutterbar pressure to 400 – 500 PSI and pitch the header all the way forward to -6. Place a 4x4 block under the cutterbar and lower the header firmly to the ground.
- Lower the reel to the minimum height setting and adjust the reel fore/aft until the reel is centered over the cutterbar.
- Manually lower the reel by adjusting the lift cylinder adjustment nut until a minimum gap of 1.5" is achieved between the highest point on the cutterbar and the reel finger tine.



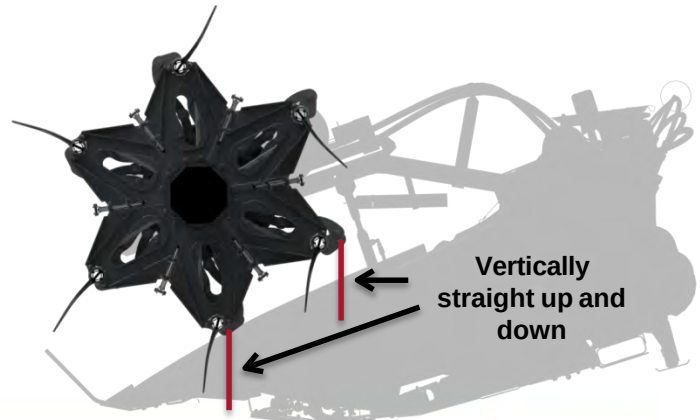
Reel Tine Pitch Adjustment

- To manually adjust the pitch of the reel tines, loosen the 3 bolts on the adjustment lever located on the right hand reel arm assembly and slide the handle to the desired setting. The adjustment lever will be in the middle of the adjustment range as a factory configuration. The reel tubes on the DynaFlex are mounted on a cam slide track which allows the individual reel tube tines to “flip over” independent of each other. Different harvest conditions can warrant a change in tine pitch, for example harvesting down lodged crop vs harvesting tall, standing crop. **As an initial setting, it is recommended to set the tine pitch to be vertically straight up and down on the back side of the reel rotation.**



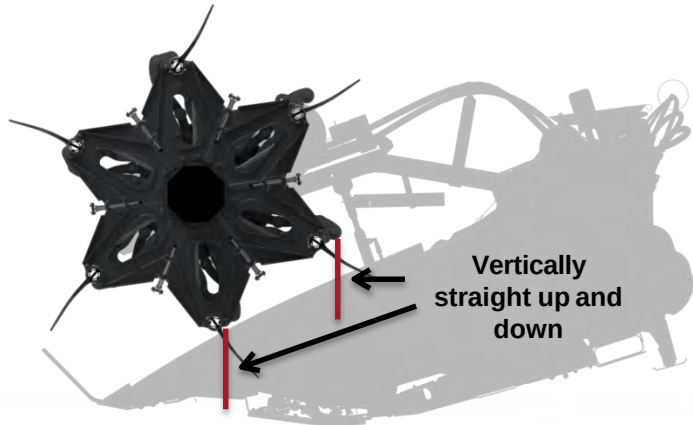
Reel Tine Pitch Adjustment

- Adjusting the lever to the full forward position will result in a less aggressive tine pitch.
- In short crop conditions or down lodged crop, this setting is not recommended as it will provide a poor transfer of material from the cutterbar to the draper belt resulting in cut crop material falling off the front of the cutterbar or build-up of material on the cutterbar.
- This setting would feed a tall, standing crop and have little chance for wrapping on the back rotation of the reel. If harvesting a very tangled, green stem crop that tends to wrap, pitching the tines to be less aggressive will provide positive results.



Reel Tine Pitch Adjustment

- Adjusting the lever to the full rearward position will result in the most aggressive tine pitch.
- It is only recommended to pitch the tines this aggressive when harvesting a very short crop or down lodged crop. This setting will grab the material and flip it up onto the draper belt from the cutterbar providing the best feeding in these adverse conditions.
- This setting would not be recommended in a tall, standing crop or tangled crop as the material would not release from the reel on the back rotation and start to wrap around the reel assembly.



Flighting Filler

- It is recommended to install the notched flighting filler kit (71430670) prior to harvesting crops that are green stemmed, tangled, or contaminated with any sort of bind weed. Failure to install the kit will result in material wrapping around the center feed auger and eventually causing the slip clutch on the drive to ratchet and shut down the harvest operation. The operator will be required to manually remove the tangled crop mat once plugged.



End Dividers/Reel Dividers

- **Standard Long Divider Rod (700962401)**

- Provides exceptional crop division in most conditions and is a simple bolt on design that can be retrofitted to previous models.



- **Reel Arm Divider Kit (700962402)**

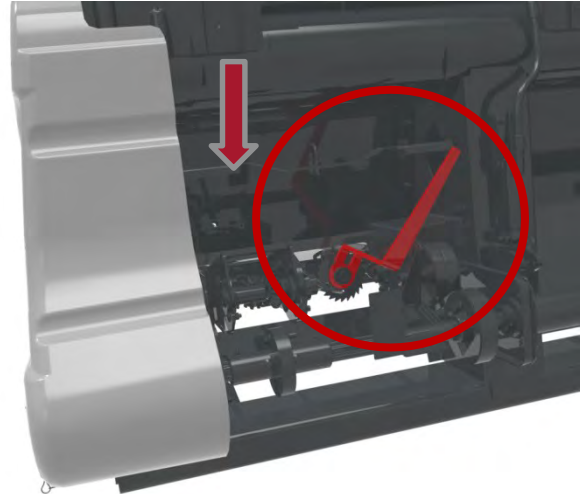
- It is recommended to install the reel arm divider kit if the standard long divider rod fails to separate the crop mat and material is wrapping on the end of the reel. This kit will utilize a shorter bottom divider rod and can be retrofitted to previous models.



Side Draper Belt Tension

- Tension the draper belts to the middle of the adjustment gauge as a starting point on each end of the header by using the provided wrench. The wrench is stowed in the area denoted by the arrow. It is recommended to run the least amount of tension possible on the belts to limit belt stretch and improve longevity.

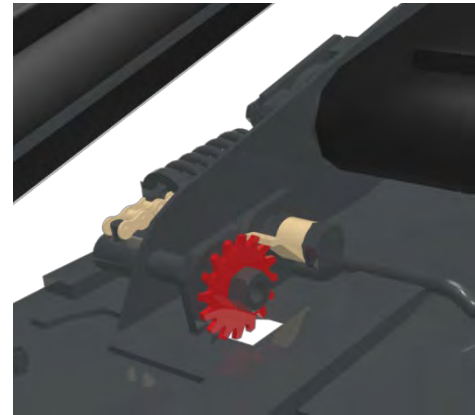
☐ Note: When not in use release tension



Center Draper Belt Tension

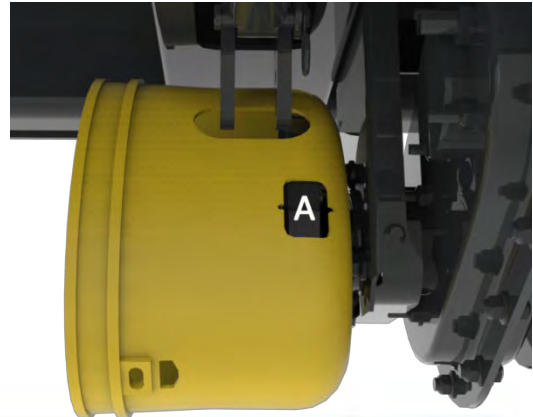
- Use a $\frac{3}{4}$ " (19 mm) wrench to tension the center draper belt and be sure to tension the system evenly on both sides by referencing the links on the chain tensioning mechanism. It is recommended to run the least amount of tension possible and if the belt does slip when harvesting crop, stop the machine and increase the tension in small increments until all slipping is eliminated.

□ Note: When not in use release tension



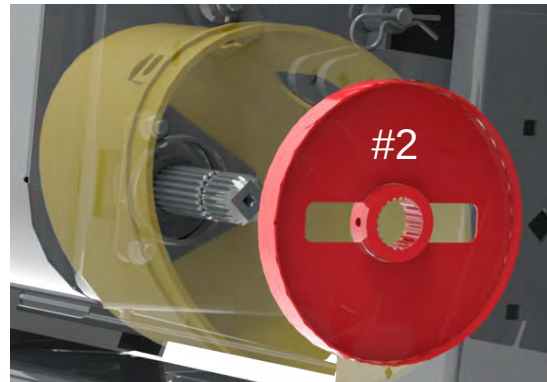
Dual Sickle Drive Timing

- The DynaFlex consists of a dual sickle drive on all 30 ft., 35 ft., and 40 ft. models which requires the sickles to be timed. The drive shaft alignment indicator is located at the rear of the header on both sides consisting of a dial with multiple letters. It is imperative to align these letters so there is an exact match on the left and right hand sides. Failure to align the sickle will result in a ragged cut in the center of the header where the two sickles mesh. If the sickle alignment is off 180° and they are moving in sync, the drives will become unbalanced and shake the machine.



Sickle Timing Procedure

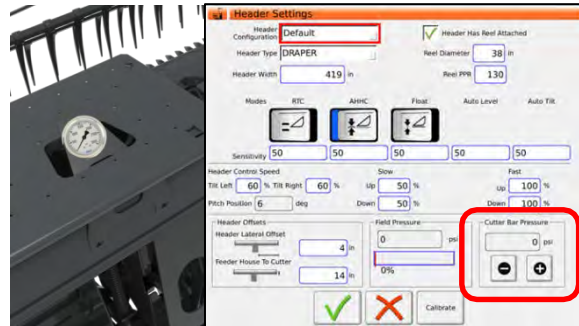
1. If the sickle drive requires timing, position the left and right sickle to the full out position.
2. Remove the driveline from one of the drive shafts of the header.
3. Remove the setscrew #1 that holds the letter wheel (#2) to the drive shaft.
4. Remove the letter wheel and rotate so the same letter appears in both of the windows in the left and right driveline bells.
5. Re-install the letter wheel and secure with set screw.



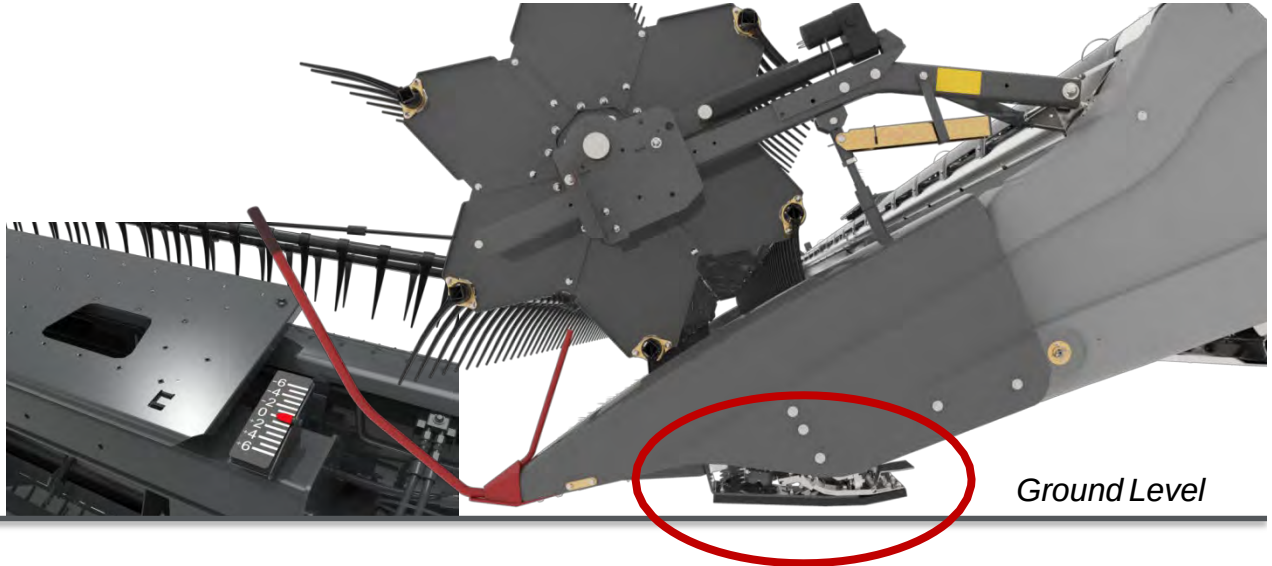
Cutterbar Pressure Initial Setting

- **Rigid Mode Operation – Short Crop**
 - 1900 - 2000 PSI
 - When harvesting short small grain crops, set the initial pressure to approximately 1900 PSI. This will allow the cutterbar to give slightly if it encounters any change in ground contour or field debris. Ensure the cutterbar maintains an even distance from the guards to the reel tines across the entire length of the header to provide optimum feeding.

- **Rigid Mode Operation – Tall Crop**
 - 2400 – 2500 PSI
 - Increase cutterbar pressure to maximum PSI when harvesting tall small grain crops when there is no risk of engaging with the ground or contacting any obstructions.

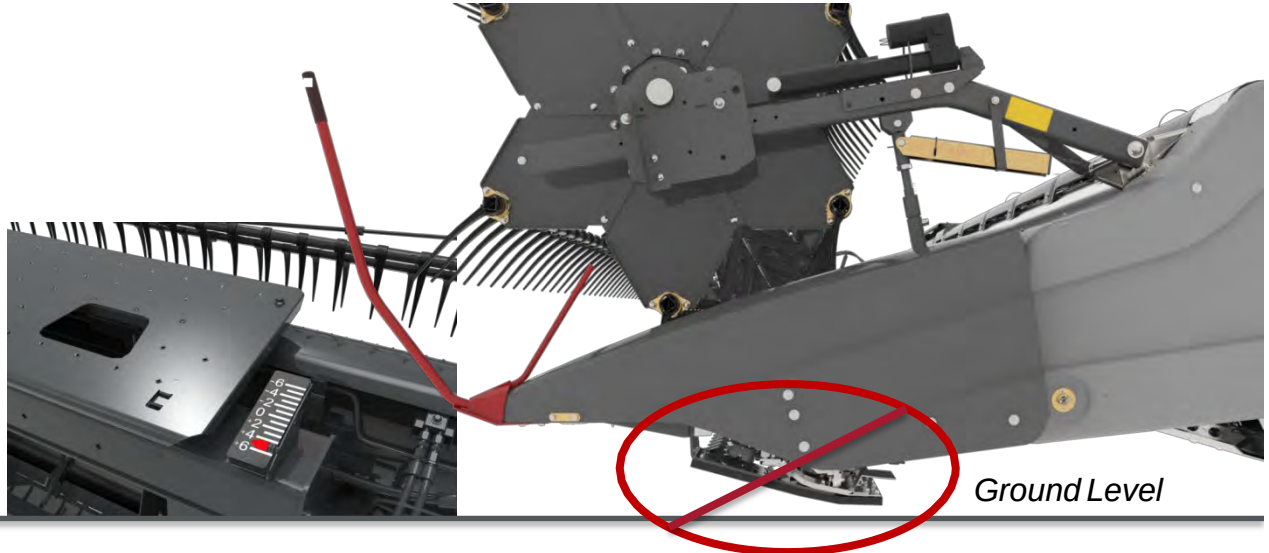


DynaFlex End Skid Pitch



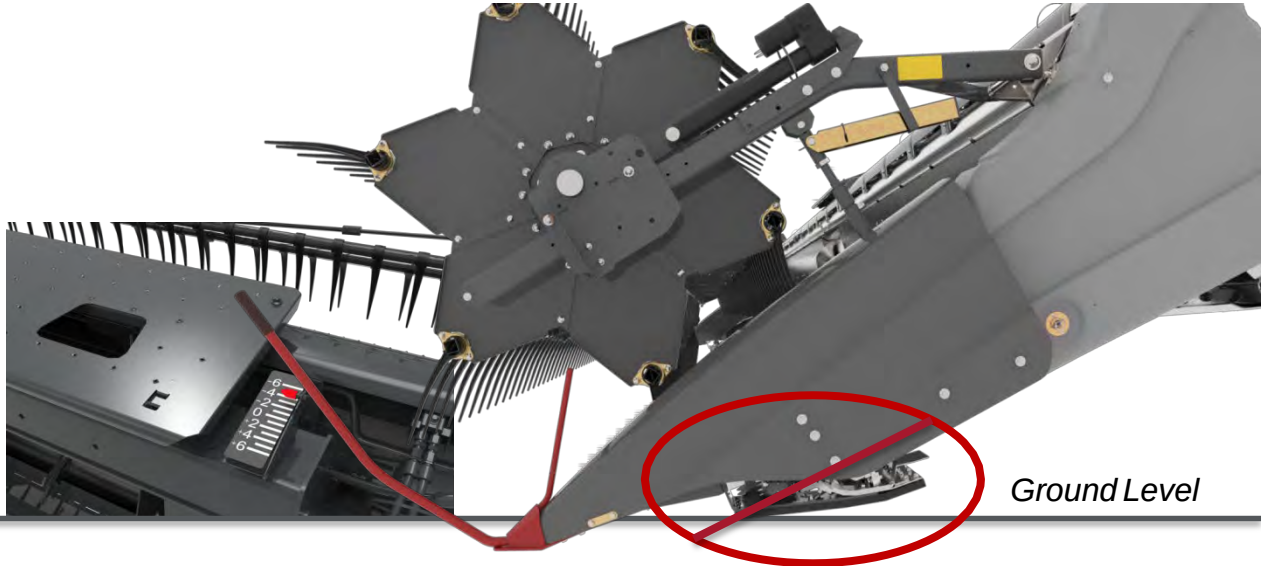
- Target to position your end skid parallel to the ground as an initial setting. This will extend the life of the end skid and provide even wear on the skid from front to back.

DynaFlex End Skid Pitch



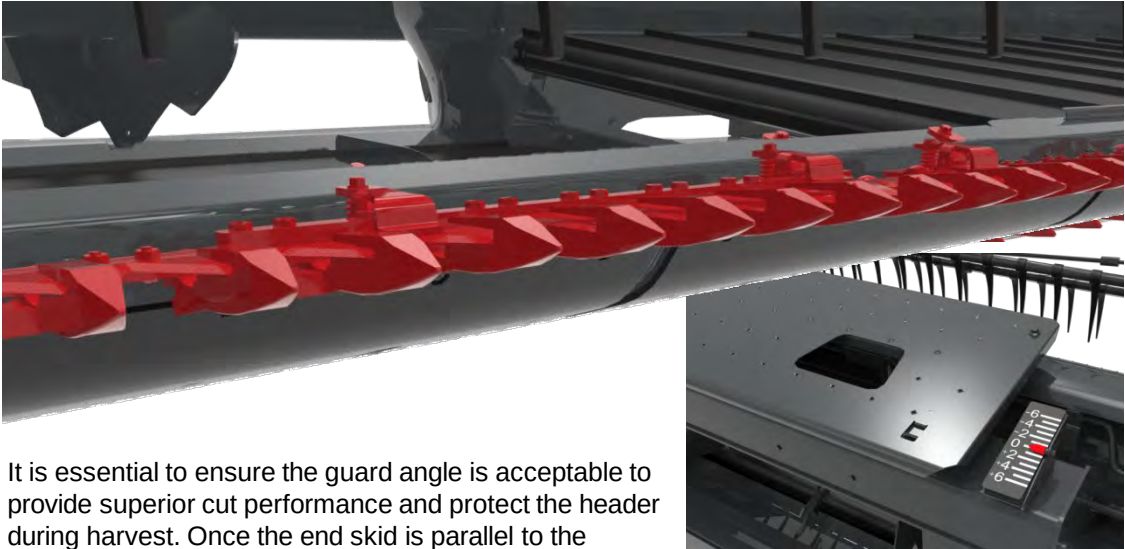
- Pitching the header rearward to far will prematurely wear the back of the end skid which is a common fault today for most operators. It is only recommended to pitch your header rearward in rocky or muddy conditions to limit the amount of rock intake or mud accumulation on the cutterbar.

DynaFlex End Skid Pitch



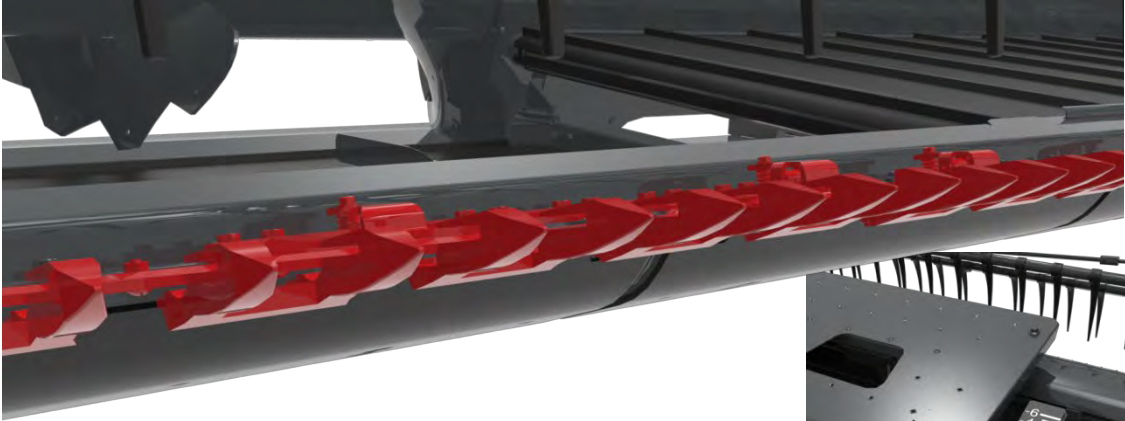
- Pitching the header too far forward will cause excessive wear on the front of the skid and also pitch your cutterbar guards at a dangerous angle to potentially gouge in the ground. It is not recommended to operate a DynaFlex header at this angle as common practice.

DynaFlex Cutterbar Guard Angle



- It is essential to ensure the guard angle is acceptable to provide superior cut performance and protect the header during harvest. Once the end skid is parallel to the ground, inspect the angle of the guards and make an adjustment to the pitch if necessary. The guard angle should be slightly pitched up from the ground surface.

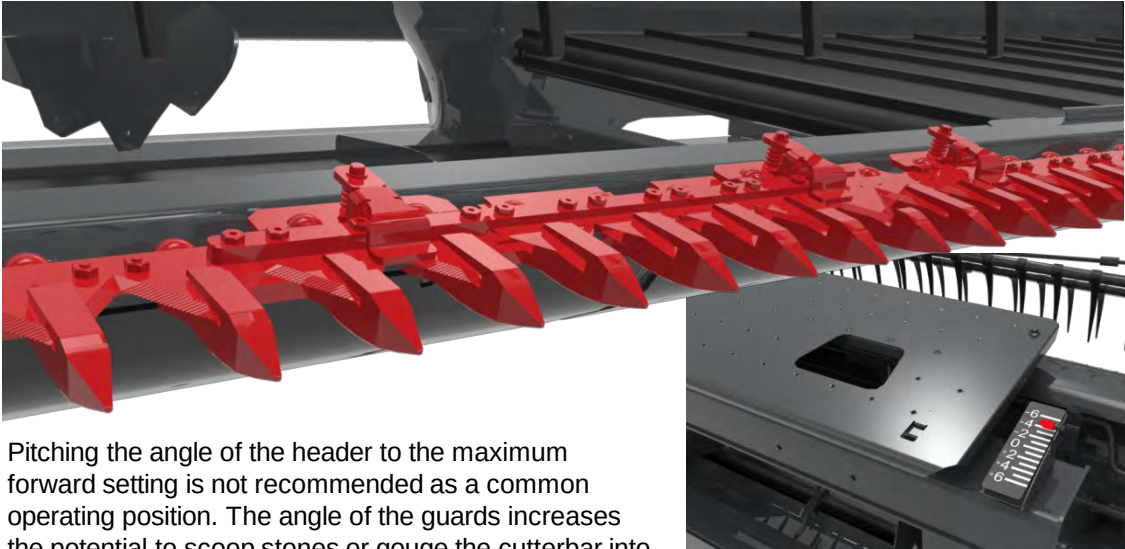
DynaFlex Cutterbar Guard Angle



- It is recommended in rocky conditions to pitch your cutterbar angle rearward to reduce the potential to pick up stones. This will provide superior rock protection to your cutterbar, but if pitched too far rearward will cause accelerated wear on the backside of the end skids. Cut performance will also be sacrificed and leave a ragged, uneven cut stalk due to the sickle not running parallel to the ground.



DynaFlex Cutterbar Guard Angle



- Pitching the angle of the header to the maximum forward setting is not recommended as a common operating position. The angle of the guards increases the potential to scoop stones or gouge the cutterbar into the ground causing extensive damage. Pitching the cutterbar to this setting can also affect cut performance and leave a jagged, uneven stalk in the field.

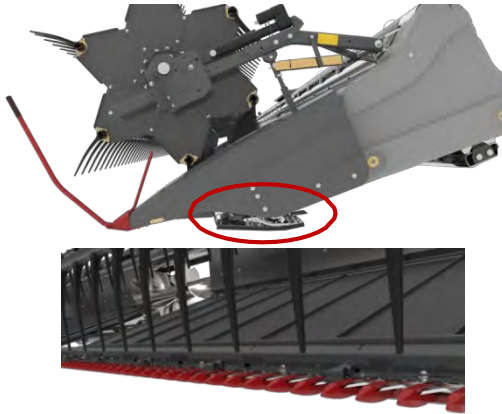
Header Height Setting



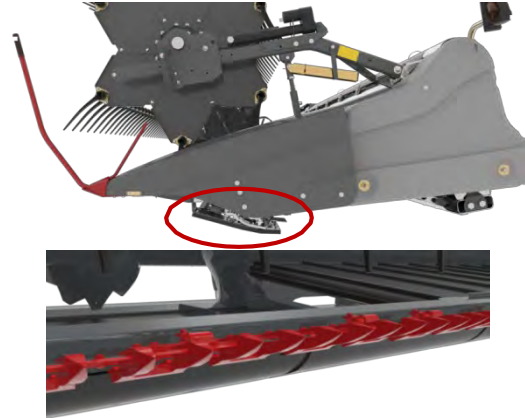
- The total range of travel of the cutterbar equals an industry best of 8 inches.
- It is recommended to adjust the header to the center of the range of travel of the cutterbar. This allows the header to flex 4" up from the set point and 4" down providing optimum performance in all conditions.
- Lower the header to the target set point by turning the header height adjustment knob located on the right hand console counterclockwise.



Header Height Setting



- The end skid will be parallel to the ground and the guard angle will be slightly pitched up when the header height setting is correct and in the middle of the travel range of the cutterbar.



- If the header height setting is set too low, the end skid will actually rock back and pitch your guards up, resulting in a higher cut height and excessive end skid wear. **Lowering the header height dial to the minimum setting does not equate to the lowest cut height in the field.**

Automatic Header Height Control (AHHC)

- Power on the AHHC system on the right hand console by pressing switch #1 forward so the number 1 is pushed down.
- Engage the automatic tilt function by pressing switch #2 rearward to the auto selection.
- Set the header accumulator to the operator preference
 - It's recommended to set the accumulator $\frac{1}{4}$ open as an initial starting point and adjust if need be.
 - Closing the accumulator all the way shut will result in a very aggressive, jolty response of the header control system
 - Setting the accumulator all the way open will result in a smoother, more cushioned response of the header control system



Automatic Header Height Control (AHHC)

- Navigate to the header settings page



- Select the correct header height control mode for the current harvest operation
- AHHC sensitivity initial setting = **50**
 - The higher the sensitivity the more reactive the header will be when encountering a change in ground contour.
 - If the header starts to bounce and hunt, reduce the sensitivity in increments of 10 until the header operation smooths out
- Auto Tilt sensitivity initial setting = **50**

A screenshot of the 'Header Settings' screen. The 'Header Configuration' section shows 'Default' selected. 'Header Type' is 'DRAPER' and 'Header Width' is '419 in'. The 'Modes' section shows 'AHHC' selected with a red box around its icon. Below the modes, 'Sensitivity' is set to '50' with a red box around the value. The 'Header Control Speed' section shows 'Tilt Left' at '60 %', 'Tilt Right' at '60 %', 'Pitch Position' at '6 deg', 'Slow' at '50 %', and 'Fast' at '100 %'. The 'Header Offsets' section shows 'Header Lateral Offset' at '4 in' and 'Feeder House To Cutter' at '14 in'. The 'Field Pressure' section shows '0 psi' and '0%'. The 'Cutter Bar Pressure' section shows '0 psi' and two buttons with minus and plus signs. At the bottom, there are three buttons: a green checkmark, a red X, and a 'Calibrate' button.

Header Calibration

- Navigate to the header calibration menu



- It is recommended to complete the header calibration once all settings have been optimized. Maintain pitch, cutterbar pressure, automatic header and tilt sensitivities, and $\frac{1}{4}$ open on accumulator
- Follow the on-screen instructions and verify all by-standers are clear of the header before starting the header calibration process.
- Note: For DynaFlex and Command Corn Heads LH and RH sensor voltages should be above 1 V and under 4 V. Ex 1.3 V to 3.8 V. Tilt is above 5mA and under 19 mA.

The screenshot shows the 'Header Calibration' menu on a machine's display. The menu is titled 'Header Calibration' in an orange header bar. Below the title, there are six sensor settings, each with a text label, a numerical value in a text box, and a unit. To the right of the settings is a vertical sidebar with a hexagonal icon at the top and a return arrow icon at the bottom. Below the settings, there is a section titled 'Valid Modes Available' with four items, each followed by a green checkmark.

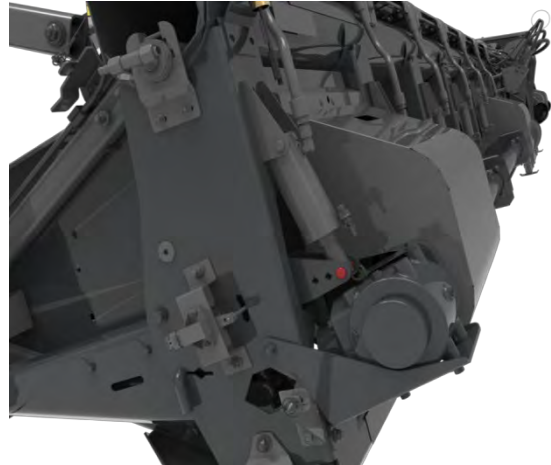
Sensor	Value	Unit
Left Header Sensor	1.5	V
Right Header Sensor	1.6	V
Header Height Sensor	12.9	mA
Tilt Position Sensor	12.7	mA
Field Pressure Sensor	17.9	mA
Pitch Sensor	2.6	V

Valid Modes Available

- Return to Cut ✓
- Automatic Header Height Control ✓
- Field Pressure ✓
- Auto Tilt ✓

Troubleshooting / Quick Tips

- **End tilt arm hydraulic cylinder**
 - To improve end skid wear, move the end tilt arm cylinder to the rear hole.
 - On early 9250 DynaFlex headers, install larger 1 ½" tilt arm hydraulic cylinders on each end of the header to carry more weight and reduce end skid wear.
 - Part # 71487457



Troubleshooting / Quick Tips

- **Harvesting in muddy conditions**

- Pitching the cutterbar rearward will reduce the amount of mud accumulation on the cutterbar.
- Increasing the cutterbar pressure will make the header lighter on the ground and reduce the tendency to push field debris or mud with the skids. Note: This will make the header more rigid and decrease the flexibility of the cutterbar.
- Increasing the cut height will decrease the down pressure on the ground and reduce the buildup of mud under the header and reduce the tendency to push.

Troubleshooting / Quick Tips

- **Harvesting in rocky conditions**
 - Pitching the cutterbar rearward will reduce the accumulation of rocks on the cutterbar and ultimately reduce the risk of the combine ingesting a large rock causing extensive damage.

Troubleshooting / Quick Tips

- **Cutterbar pushing field debris**

- Increasing the cutterbar pressure will make the header lighter on the ground and reduce the tendency to push field debris. Note: This will make the header more rigid and decrease the flexibility of the cutterbar.
- If pitched too far forward, the cutterbar guards are more likely to spear and push field debris. Pitch the header rearward slightly, but still maintain proper end skid setting.
- If the header cut height is set too low, the excessive amount of down pressure on the ground will result in field debris accumulation under the end skids and across the cutterbar. Turning the dial clockwise and increasing cut height to the mid range of the cutterbar travel will provide the best results.

Troubleshooting / Quick Tips

- **Harvesting green stem soybeans**
 - Increase the cutterbar pressure from the minimum setting to limit the potential for the cutterbar to rise up on the tough stalk. Increasing the pressure to approximately 600 – 700 PSI will make the cutterbar more rigid and allow the header to effectively cut the green stem.

Troubleshooting / Quick Tips

- **Harvesting down, lodged crop**

- Decrease cutterbar pressure to minimum setting to allow full flexibility of the cutterbar.
- Pitch cutterbar further forward to allow guards to scoop under crop mat. Use extreme caution when operating at this pitch on the cutterbar.
- **Do not** turn the header height adjustment dial to the minimum position to attempt to achieve a closer cut, as the guards will actually pitch up resulting in a higher cut height. Target to set the header cut height in the middle of the cutterbar travel range.

Troubleshooting / Quick Tips

- **Harvesting uneven, rolling terrain in flex mode**
 - Decrease cutterbar pressure to the minimum setting (450 – 500 PSI) to provide maximum flexibility of the cutterbar.
 - Increase automatic header height control and automatic tilt sensitivities to provide faster response in rolling terrain.
 - Slow down and allow header height control system to react when crossing terraces, ditches, or any other uneven field terrain.
 - Ensure the guard angle is slightly pitched back to limit potential to gouge cutterbar in the ground

Troubleshooting / Quick Tips

- **Harvesting flat ground in flex mode**
 - Set cutterbar pressure higher (800 – 1000 PSI) as maximum flexibility of the cutterbar is not required. This will make the cutterbar more rigid and reduce the down pressure of the end skids on the ground improving end skid wear.
 - Automatic header height and auto tilt sensitivities can be reduced if header is bouncing as faster response performance is not a requirement in flat terrain.

3300 Command Corn Header

Setting Guide for Field Performance

Primary Settings

- Header Pitch
- Deck Plate Gap
- Header Speed

Header Pitch

- **Gleaner S-Series / MF 9500/9505 Series / Challenger 500C/500E:** +2 degree interface
- **IDEAL:** -1 degree interface of fixed link, 0 degree feeder face



Deck Plates

- **Half open:** 31.8 mm or 1.25 in



Deck Plates

- Small diameter ears require deck plates to be closed and larger ears require deck plates to be opened
- A method in adjusting deck plates is to open until increased crop loss can be detected on the ground, then close slightly
- Deck plates should be adjusted so that the ear or parts of the ear are not pull through the gap between deck plates

Deck Plates

- Butt shelling can occur in corn heads which can be seen by loose kernels on the gatherers or on ground
- Closing down deck plates is not a sure method of reducing kernels from reaching the ground and may cause other issues resulting in decrease performance of the header and combine. Header speed could be a cause
- Correct adjustment of deck plates: **3.0mm** wider at rear than at front.

Header Speed

- **Feeder Speed Gleaner S-Series / ME 9500/9505-series / Challenger 500C/500E initial setting:** 440-460 rpm. Not to go below 360 rpm
- **Header speed IDEAL initial setting:** 880-900 rpm. Not to go below 720 rpm

Header Speed

- Header speed needs to be set so that stalks are pulled through the row unit prior to reaching the rear limit of the row unit opening
- Goal should be to have stalks pulled down and through 2/3 to 3/4 of the way back in the row unit
- Tall crop will require header to be sped up, short crop may allow header to be slowed down

Header Speed

- Header speed is not solely related to ground speed. Auto header speed control, if equipped, may not be appropriate for some conditions
- Over speeding the header can result in increased butt shelling and ear bounce
- But increasing header speed to a point can reduce build up at center of auger in some conditions

Header Speed

- 3300 Command header is geared lower than the 3000 Hugger header. The 3300 header must be run at a higher input shaft speed than the 3000

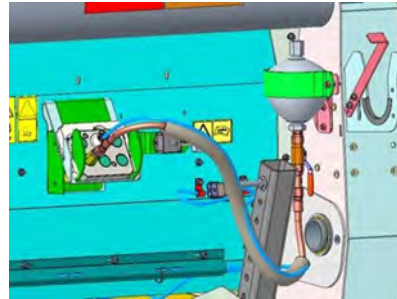
Snout Adjustment

- Snouts should be adjusted so that the snout opening above the gathering chain idler is parallel with the gathering chain. Snout should not rub on gathering chain
- If snout is adjusted higher that this crop can get jammed in above gathering chain
- If it is desired that the snout be pitched down, pitch entire header



Interface Accumulator

- Ball valve handle needs to be in line with valve in order for accumulator to be operational
- Pitch setting needs to be -5° to $+5^{\circ}$ in order for accumulator to function

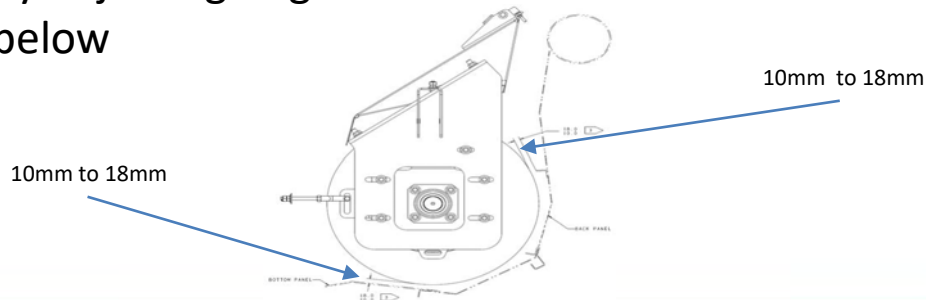


Interface Accumulator

- Suggest to leave valve open
- When hooking up to head push feeder face against header interface, interface will move to match feeder face angle which allows for feeder to lift and hook header

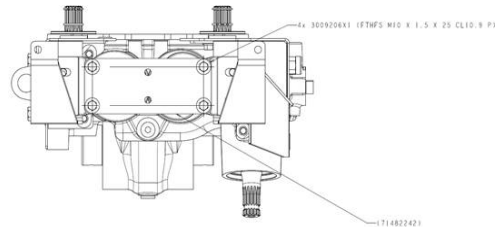
Auger Adjustment

- Main purpose of auger adjustment is to adjust so that auger does not interfere with strippers, pan bottoms, or gatherers
- Experience has shown that little performance is gained by adjusting auger different than dimensions shown below



Stalkroll Alignment

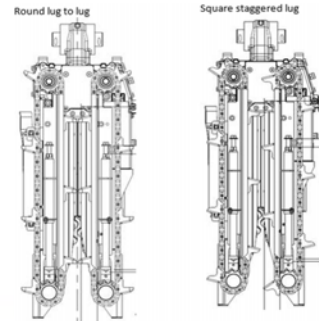
- Stalkrolls should not be adjusted at front supports in order to attempt better crop interaction
- Stalkrolls are meant to be parallel
- Use tool 71482242 to properly align stalkrolls during service procedures



SERVICE NOTE FOR STALK ROLL FRONT MOUNTING:
FOR PROPER STALK ROLL ALIGNMENT, ATTACH FIXTURE 71482242 TO STALK ROLL FRONT SUPPORTS PRIOR TO FASTENING SUPPORTS TO ROW UNIT FRAME.

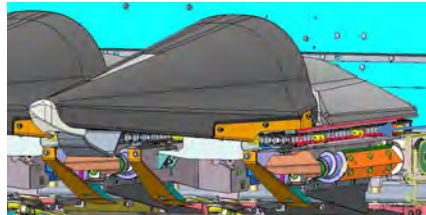
Gathering Chain

- Went from round lug chains that were lug to lug to square lug chain with staggered timing
- If head is still equipped with rounded lugs, plates available from service should be fastened to lugs and lugs retimed to staggered configuration
- Square lugs grab the crop better.



Gathering Chain

- Gatherers need to be adjusted properly to prevent leakage of kernels
- Gatherers should rest on chain guides and be centered left and right
- To correct adjustment move mounting at front and rear of gatherer



Centered left and right

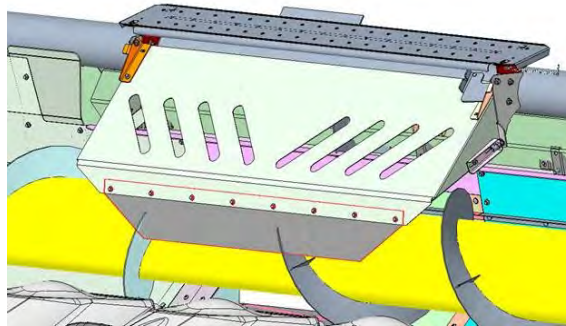
Header Options

- **Snout skids:**
- Snout skids provide additional flotation for snouts to prevent snout damage. Skids are useful when encountering pivot irrigation tracks
- If stalks are down and lodged skids may need to be removed in order to get snout point under crop



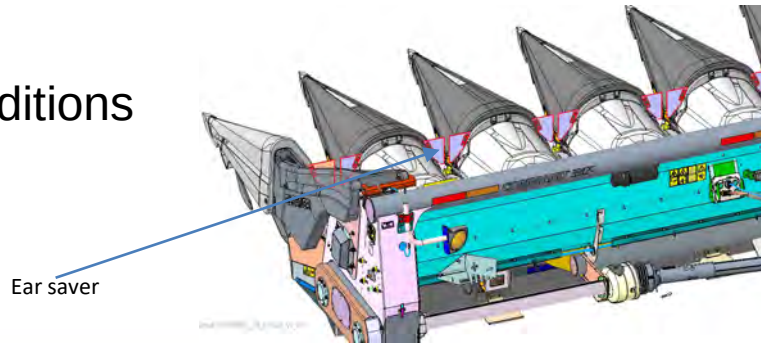
Header Options

- **Hood flap:**
- Intent is to stop ears from being launched forward at center of auger



Header Options

- **Ear Savers:**
- There may be some conditions where ear savers are beneficial and customers prefer them. Ear saver kits are available
- Based on conditions



Header Options

- **Auto Header Height Control:**
- Preferred preference is to operate header in auto lateral tilt and manual height control
- It is preferred to use extensions on ground sensors.
Part #71486830



Notes

Notes

Notes

Notes



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