## HARVESTMORE GRAIN HEADER



# Young's Custom Ag Service

OPERATOR'S SERVICE MANUAL

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## <u>To The Owner</u>

Welcome to the family of Harvestmore ownership. The Harvestmore Grain header is a God inspired invention. God said that he would not share his glory with any man, and that is why He gets the credit for its design.

Through the reading of this manual and the following of the instructions within, the operator of a Harvestmore will experience years of unsurpassed performance and dependability.

The 9 adjustments that can be made to a Harvestmore are all listed in this manual and are to be made by the owner. Young's Custom Ag Service (YCAS) has designed and manufactured each header, but it is the owner's responsibility to maintain and adjust the header for his own changing crops and conditions. There is not a *"one size fits all"* setting for this header.

It is the responsibility of the owner to read and follow all of the instructions for adjusting, maintaining and lubricating this header before it goes into the field. YCAS will not be held responsible for the failure of any Harvestmore Grain Header because of any misuse or abuse to it.

Common sense always wins! Safety first!

When referencing this manual, keep in mind that the terms "right" and "left" correspond with the operator sitting in the cab of the combine.

The serial number for a H.G.H. <u>(Harvestmore Grain Header)</u> is located on the upper beam of the header, standing behind it on the left side. Each serial number contains the year of manufacture.

This will aid when ordering parts.

The H.G.H. is the only grain header manufactured for all makes of combines and, because of that, YCAS has addressed the different issues which occur from making one header to fit all types.

For example, there are differences in driveline components, feeder house hookups, as well as hydraulic couplings and the electronics for header control.

The majority of the rest of its parts are interchangeable with other Harvestmore Grain Headers.

#### **ANGLE FINDER**



Shown is an **angle finder** on one of the vertical frame struts on the backside of the header.

This is used to find the correct pitch (*here showing a 10 degree forward tilt*). It is obtained when the header is hooked to the combine and collapsed all the way to the ground.

Most combines have an *adjustable faceplate* to their feeder house to attain this degree.

Those with *fixed* feeder houses may need a *wedge kit*.

#### **MOUNTING BOLTS**



*The* **Pro-drive** *for the sickle drive has 4 mounting bolts.* Two are shown in the picture.

The four of them need to be checked preseason each year.



Underneath the Pro-drive is the **drive head bearing**.

The two flanged hex-head bolts should be tightened preseason and weekly during harvest. The drive-head for the sickle also has a bolt that needs to be checked preseason and weekly throughout the harvest season.

Due to the fact that different combine manufacturers have feeder house jackshafts that run at different speeds, not all Harvestmore Headers will have the same drive belt for the sickle drive.

#### **DRIVE ARM PIVOT PIN**



On the left side of the header is the **pro-drive** and the arm that it sits on.

Underneath the header is the pin that the arm pivots on. This nut needs to be kept tight ...but not too tight.

*Note:* If the cutter bar does not drop when the header is picked up, the nut is too tight.

#### **SICKLE DRIVE ASSEMBLY**



On the left side of the header is the **sickle drive assembly.** Take note of the path of the belt.

When replacing the belt, refer to this picture. The drive sheave (right hand of picture) is matched to the drive belt length.

Refer to <u>Components Guide</u> on page 35 for the proper match for your combine.

## **DRIVE SHEAVE**



On the left side of the header is the **drive sheave** for the **Pro-drive sickle drive unit.** 

The Harvestmore was designed to have no more than 525 rpm put to it. The drive sheave and drive belt are changed for those combines having a faster feeder house jackshaft speed.

Check specs on page 35 for the belt and sheave required to match your combine

#### **BELT TIGHTENER SPRING**



Shown here are the **Pro-drive unit** and the **belt tightener spring**.

The ½ inch nut on top needs to be moved upward before the nut on the bottom is adjusted.

#### **BEARING HOLDER BRACKET**



Behind the drive sheave on the left side is a jackshaft bearing holder bracket.

This bracket is slotted to allow for adjustment for belt tension. As a belt wears, the bracket can be shifted rearward. Adding "new life" to the belt.

#### AUGER DRIVE



Located on the right side of the header is the **auger drive**.

The drive sprocket (*shown*) can be changed to increase or decrease the speed of the auger.

Different crops and ground speeds will determine whether to speed up or slow down the speed of the auger. Two reel adjustments are standard on all Harvestmore Grain Headers. 2011 model and newer have a *"no wrench"* vertical adjustment.

Simply raise the reel to its full extent and the clevis pin can be removed and placed into a different height hole.

## VERTICAL AUGER ADJUSTMENT



Shown is the vertical auger adjustment.

Remove the safety clip, pull the clevis pin and select a different hole for auger height adjustment. *Note:* Be sure to set both sides the same.

#### **AUGER FORE AND AFT ADJUSTMENT**



Shown is the auger fore and aft adjustment bolt.

*Note:* Be sure that if one side is adjusted, the other is adjusted equally.

If the crop has a tendency to carry around the auger, drawing the auger closer to the combine will put the auger flighting closer to the stripper bar in the trough of the header.

#### **STRIPPER BAR**



Shown is the angle iron stripper bar mounted in the trough.

This aids in preventing the crop from following the auger around on the back side. Both vertical and fore and aft adjusting of the auger will affect the position of the stripper bar.

*Note:* Newer series Harvestmore headers are equipped with a double stripper bar. Older series headers can be converted.

The *"floating auger"* was added in 2011. When the reel is raised to its full extent the auger will be raised too, allowing the operator to reverse the header to back out a slug in the feeder <u>house</u> without the auger being in the way. *Older Harvestmore headers can be converted.* 

Hydraulic reel lift, along with fore and aft, are standard on all Harvestmore headers.

Some combine manufactures use electric actuators to facilitate the fore and aft. (Shown below).



The reel on a H.G.H. can be adjusted up and down hydraulically, move fore and aft hydraulically, and sped up or slowed down hydraulically.

All reels can be adjusted to change the pitch of the reel fingers and is made manually on each side of the reel.

Note: Be sure to set both sides the same.



Shown is the **Orbit reel** and its adjustment.

Young's Custom Ag Service has used four different styles of reels to accommodate the different demands that the world presents. Soybeans, rice, lentils, chick peas, and Milo all feed differently.

Our hope is that we have recommended the correct style of reel for your needs.

#### **AUGER DRIVE CHAIN & TIGHTENER**



Shown is the **auger drive chain and spring loaded tightener**. This spring is totally collapsed, which is <u>improper</u> adjustment.



Shown is the <u>proper</u> adjustment to the auger drive chain tightener

There should only be ½ inch of bushing showing to the left of the bracket, thus allowing movement in the tightener.



Shown is the auger drive chain and adjustable idler sprocket.

This is to be adjusted to create the ½ inch of bushing showing in the previous picture.

*Note:* Changing auger height (refer to PAGE 14) will require a readjustment to the chain tension.

The H.G.H is a flex header. The cutter bar flexes to follow the terrain, to enable you to harvest more of what you grow.

The H.G.H also can be *"locked up"* for a *rigid* cutter bar for use in small grains.



In front of the vertical spring assemblies, on the backside of the header, is a ½ inch bolt running through the support arm. This is where the lockup bushing sets to create a rigid cutter bar.

This is a "limit bolt" that is factory set to limit the amount of vertical travel of the cutter bar.

## LOCKUP BUSHING



Shown is a **lockup bushing**.



Shown is a **lockup bushing** installed. This will create a rigid cutter bar for small grain harvesting.

A 2 inch bushing is all it takes to create a rigid cutter bar. The cutter bar must be totally collapsed to install the lockup bushings.

The header sitting on a header cart makes it easy to install the bushings.

The weight of the cutter bar can be adjusted on the backside of the header.

### VERTICAL SPRINGS



Shown is one of the **vertical springs** on the backside of the header.

Moving the double nuts *downward* will lighten up the cutter bar. Moving the double nuts *upward* will create more *down* pressure to the cutter bar.



*To the right of the vertical spring is a 5/16" header control rod. <i>Preset from the factory.* 

*Note:* Only if there was a support arm replacement or breakage to this rod, would there be a need to readjust any of these rods.



Shown here is the *header control shaft return spring.* 

This is found on the right side of each header.

*Note:* Weak or broken springs will disable automatic header control.

#### **GREASE ZERKS**



Shown here are the grease zerks for the Pro-drive and the drive belt tightener arm front bushing.

The Pro-drive requires one pump of grease daily, while the belt tightener arm bushing will need enough to be seen.There is a single zerk found at the top of the unit.One pump of grease per day of use is proper maintenance.

*Note:* Over greasing can cause seal failure and result in failure to the unit.



#### Shown is the underneath of a **support arm**.

These are what your cutting system is bolted to and what your *skid plates* hang from.

The grease zerk on each of these arms is to be greased daily until grease is seen.

This is the "life" of the header.

*Note:* Failure to grease daily will create wear, which will cause vibration in the entire header.



Shown is the right side divider pivot grease zerk.

This should be greased daily until grease is seen.

#### **AUGER DRIVE CHAIN**



On the right side of the header is the **auger drive chain**.

The tightener has a grease zerk that needs to be greased daily *until seen*.



Shown is the grease zerk for the **belt tightener arm**.

This should be greased daily.



Shown is the grease zerk for the **left side divider**.

Grease daily until grease is seen.



Shown is the grease zerk on the end of the reel.

Each side of the reel has a zerk that needs to be greased daily until grease is seen.

#### **COMPONENTS GUIDE**

Case-IH combines 715 - 2588 will use a 10" sheave for the sickle drive and a 1260 belt: *126*" *long C*-*groove* 

CNH combines 50, 60, 7088 and 70, 80, 9010 through the 30 series will all use an 8" sheave and a 1215 belt: *121.5" long C-groove* 

John Deere are all 10" sheave and 1260 belt: *126*" long C-groove

Cat and Agco will use either 7" or 8" sheaves, and either 1215 belts or a 1200 belt: *120*" *long C*-*groove* 

Sensors used on Case-IH, Cat, CNH, Agco and John Deere for header control and lateral tilt are from Case-IH. *Calibrate according to the manufacture of the combine that the Harvestmore is hanging on.* 

SCHUMACHER cutting systems are just that. Other guards and sections will not interchange with them.

Standard 3" cutting systems can be serviced through Case-IH as well as Shoup and local Farm Supply stores.

Reel fingers are either Hart-Carter or for the Universal Harvester U-II reel.

Hart-Carter reels are used by most equipment dealers.