

Shelbourne

REYNOLDS

XCV & XCS

REST OF THE WORLD OPERATORS MANUAL

PRE 2018 - ORIGINAL INSTRUCTIONS



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Issue 3

17/05/2018

STRIPPER HEADER

www.shelbourne.com



MACHINE IDENTIFICATION

STRIPPER HEADER SERIAL NUMBER _____

STRIPPER HEADER MACHINE NUMBER _____

ADAPTOR PLATE ASSEMBLY **KIT-** _____

DRIVE KIT **196549** _____

HYDRAULIC FITTING KIT **KIT-** _____

OPTIONAL KITS _____

The following manuals can be ordered from your Shelbourne Reynolds dealer or downloaded from the Parts and Service section of the Shelbourne Reynolds website

www.shelbourne.com

STRIPPER HEADER PARTS MANUAL **MAN-** _____

PRE-DELIVERY & SETUP MANUAL **MAN-01905**

Use the following procedure to ensure the correct parts are ordered for the machine

ALWAYS QUOTE THE MACHINE AND SERIAL NUMBERS WHEN ORDERING SPARE PARTS

Refer to the front pages of the parts list section (machine assemblies) and select the correct machine assembly, matching the machine number above.

Use the sub assembly numbers and descriptions to find the area of the machine for which your part is required. The year and/or serial number of the machine may determine the correct sub assembly. Find the sub assembly parts listing using the sub assembly number. The number will be printed in the top left-hand corner; the sub-assemblies are in numerical order.

Having found the correct parts list, you will find the corresponding drawing by either looking at the facing page or progressing through the manual to the next drawing. The drawings indicate the components by item numbers, which you will find, are repeated in the left-hand side of your parts listing, and therefore referring to the correct part.

DEALER PRE-DELIVERY / INSTALLATION CHECK AND WARRANTY REGISTRATION – STRIPPER HEADER
DEALERS PRE-DELIVERY / INSTALLATION CHECK
IMPORTANT Δ

All items listed below must be checked, and adjusted if necessary. The person conducting the inspection should tick each item in the space provided, indicating whether or not adjustments were required. In the event of additional work being needed, details should be given in the additional work / discrepancy box, located at the bottom of this sheet, or on a separate sheet if required. When the inspection is complete, THIS FORM MUST BE COPIED & RETURNED TO: - Shelbourne Reynolds within 30 days of delivery to customer, otherwise the invoice date to the dealer will be deemed to be the start date for the warranty period.

SERIAL NUMBER: MACHINE NUMBER:

MODEL: COMBINE MODEL:

PLEASE TICK APPROPRIATE COLUMN FOR EACH ITEM UNDERTAKEN

Dealer Pre Customer Delivery / Installation / Commissioning	Checks OK	Adjusted
Is the header set correctly for the combine?		
Is the combine set up for the header?		
Install header onto the combine.		
Install the monitor kit into the combine.		
Check the auger is adjusted correctly.		
Ensure the auger chain is tensioned correctly.		
Ensure the spare pulley is fitted to right hand end of header (RSD & XCS only).		
Remove the transport and forklift brackets from the header.		
Check adaptor plate, ensure header is pitched correctly.		
Ensure the header is greased.		
Check gearbox oil levels.		
Adjust skids.		
Install crop markers.		
Check in general the tightness of fasteners.		
Ensure that all safety guards and decals are fitted.		
Run up header, on CVS, RVS and XCV, adjust rotor speed from minimum to maximum.		
Check monitor works correctly.		
Check marker lights work correctly (if fitted).		
Check crop deflector works correctly, fully up and fully down, and height indicator is fitted.		
Adaptor plate turnbuckles adjusted, header tilts freely (XCV & XCS only).		
Adaptor plate springs adjusted, header sits level (XCV & XCS only).		
Gauge wheels fitted (XCV & XCS only).		
Crop deflector centre support adjusted (XCV42 & XCS42 only)		
Check paint work and finish.		
Ensure that an operator's manual is supplied with the machine.		
Additional Comments:		
Dealer Representative's Name:	Date:	

Customer Instruction	Actioned
Explain the correct setting & operation of the machine to the customer.	
Ensure the maintenance schedule is explained to the customer.	
Ensure the oil level, lubrication & grease points are indicated to the customer.	
Ensure all safety precautions & warning decals are explained to the customer.	
Ensure the warranty policy is explained to the customer.	
Ensure that the operator's manual is handed to the customer.	
Additional Comments:	
Dealer Representative's Name:	Date:

For specific details please refer to the operator's manual.

EC Declaration of conformity for machinery

(Machinery Directive 2006/42/EC, Annex II, sub. A)

Manufacturer: Shelbourne Reynolds Engineering Ltd.

Address: Shepherds Grove Industrial Estate,
Stanton,
Bury St Edmunds,
Suffolk.
England.
IP31 2AR

Name and address of the person (*established in the European Community/EEA*)
authorized to compile the technical file (*to the authorities on request*):

Name: Mr. Neil Smith

Address: As stated above.

Herewith we declare that:

DESIGNATION:

STRIPPER HEADER

MODEL:

TYPE:

MACHINE No.:

SERIAL No.:

- is in conformity with the relevant provisions of the Machinery Directive (2006/42/EC)
- is in conformity with the relevant provisions of the EMC Directive (2004/108/EC)



Neil Smith
Director

Place:

Stanton, England.

Date:

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SECTION 1

INTRODUCTION

1.1 FOREWORD

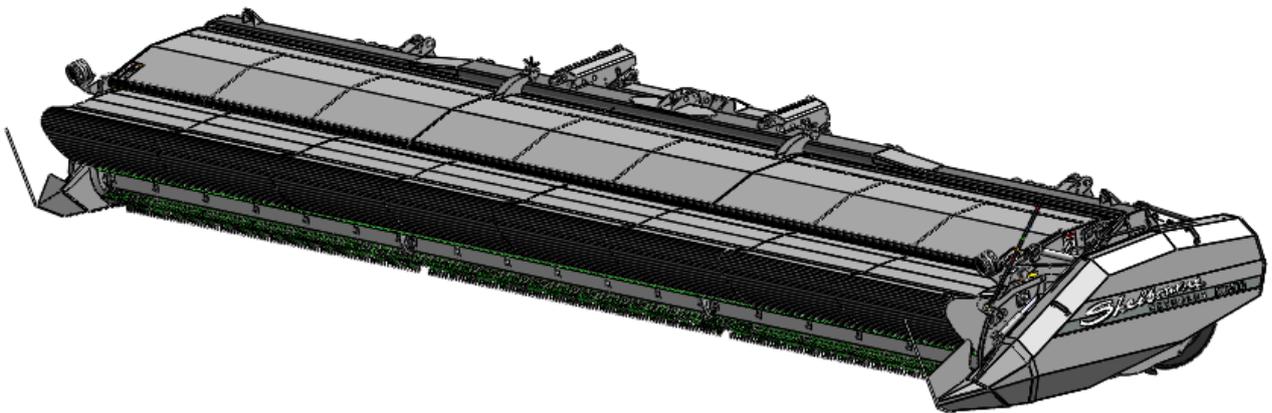
This manual will assist the operator in setting, operating and servicing the Shelbourne Reynolds (Shelbourne) **XCV and XCS** Stripper Header as well as providing important safety information. This manual should be used in conjunction with the combine manufacturer operator's manual (CMOM).

CAREFULLY READ THIS MANUAL BEFORE ATTEMPTING TO SET OR OPERATE THIS MACHINE

Keep this manual handy for frequent reference and to pass onto new operators or owners. A storage tube for this manual is located on the rear left hand side of this machine.

THIS MANUAL DOES NOT PROVIDE INFORMATION FOR UNLOADING, UNSTACKING AND ASSEMBLING THIS MACHINE. CONTACT SHELBOURNE FOR INFORMATION ON THIS.

The Stripper Header has been tested in a wide range of crops and crop conditions. The use of this manual, the Shelbourne Combine Settings Guide and the CMOM should ensure the Stripper Header and combine harvest efficiently and obtain favourable throughputs and loss levels in particular crops and field conditions.



1.2 IMPROVEMENTS AND CHANGES

Shelbourne is continually improving its products to meet the customers' needs and therefore Shelbourne reserves the right to make improvements and changes when practical to do so, without incurring any obligation to make changes and additions to equipment which has been sold previously.

1.3 SERVICE PARTS

Use genuine Shelbourne spare parts on Shelbourne machinery to ensure maximum life and best performance. These are available through your Shelbourne dealer.

When ordering spare parts always quote the model, serial number and machine number.

1.4 MACHINE IDENTIFICATION

The serial and machine numbers of the Stripper Header are located on the rear left hand corner of the machine. A second serial number plate is located underneath the right hand guard.

Shelbourne
REYNOLDS

SHELBOURNE REYNOLDS ENGINEERING LTD, STANTON, SUFFOLK, UK. IP31 2AR.
TEL: +44 (0)1359 250415 WWW.SHELBOURNE.COM

CE

SERIAL NO. TYPE M/C NO.

FOR SPARES QUOTE BOTH SERIAL NO. AND MACHINE NO.

DESIGNATION YEAR

MAX TOTAL WEIGHT UNLADEN WEIGHT

FRONT AXLE LOAD REAR AXLE LOAD

DRAWBAR MAX LOAD

SHELBOURNE REYNOLDS INC.
PO BOX 607, COLBY,
KANSAS 67701, USA. PH: 785-462-6299

1.5 TERMS AND CONDITIONS OF SALE AND WARRANTY

NEW MACHINE WARRANTY

All new machines supplied by **Shelbourne Reynolds Engineering Ltd.** ("**Shelbourne**"), are warranted to the original purchaser (who is not the Shelbourne dealer), under normal use and service, to be free from defects in material and workmanship for a period of 12 months from the date of delivery to the original purchaser ("**Warranty Period**"). This limited warranty gives you specific legal rights and is in addition to any statutory rights to which you may be entitled. Your statutory rights are not affected by this warranty.

To qualify for the full benefit of this warranty, the dealer must ensure that the warranty registration details have been returned to Shelbourne within 30 days from the date of delivery. Using the machine implies the knowledge and acceptance of these instructions and the limitations contained here in this Manual. Shelbourne reserves the right to suspend the operation of these warranty conditions unless and until the purchaser has paid in full for the goods or parts in question.

WARRANTY CLAIMS

If the original purchaser:

- 1) gives notice in writing to Shelbourne during the Warranty Period, and within a reasonable time of discovery, that the machine supplied does not comply with the warranty given above;
- 2) gives Shelbourne a reasonable opportunity of examining the machine or the damaged or defective parts; and
- 3) if requested by Shelbourne, returns damaged or defective parts (via the original authorised Shelbourne dealer) within 30 days of notification of a defect,

then Shelbourne shall, at its option, repair or replace the defective machine or parts, or refund the price of the defective machine in full.

If Shelbourne authorises the original purchaser to arrange a repair of the machine, all claims for repair costs must be submitted to Shelbourne by an authorised Shelbourne dealer within 15 days of the date of the repair on a Shelbourne Warranty Claim Form. The submission of a claim is not a guarantee of payment. Any decision reached by Shelbourne is final.

This Warranty Policy does not give the original purchaser any additional rights other than those specified above. In particular, Shelbourne shall not be liable for any loss of profit, loss of or damage to goodwill, loss of contract business or business opportunity, or indirect or consequential loss, arising from any failure by a machine to comply with the terms of this warranty.

LIMITATIONS AND EXCLUSIONS

Shelbourne will not be liable for the machine's failure to comply with this warranty in any of the following circumstances:

- 1) any repairs or modifications are carried out without Shelbourne's prior consent to the work being done;
- 2) where damage or depreciation caused by normal wear and tear;
- 3) where any non-genuine Shelbourne parts have been fitted or used within the machine,
- 4) wilful or accidental damage, damage caused by foreign objects (e.g. stones, metals and any materials other than those suitable for the machines intended use).
- 5) where damage or depreciation is caused by neglect or failure to carry out proper maintenance as recommended in the Shelbourne Operators Manual.

- 6) where damage or depreciation caused by abnormal or in-proper use in accordance with Shelbourne recommendations and/or as per the Operating Instructions.
- 7) where the original purchaser or any third party continues to use the machine after notifying a defect to Shelbourne, or after becoming aware of such a defect.

This warranty shall not apply in respect of:

- 1) drive belts, stripper fingers, bearings or any other items which are considered to be a normal wearing or consumable item; and
- 2) items not manufactured by Shelbourne such as trade accessories e.g. tyres, belts, hydraulic motors, hydraulic valves, PTO shafts etc. are warranted by their respective manufacturer.

TRANSFER OF WARRANTY

Shelbourne may at its sole discretion allow this warranty to be transferred to a subsequent owner of the machinery for the balance of the warranty period, subject to all of the warranty conditions being met and only with Shelbourne giving prior written consent.

WARRANTY ON PARTS

Shelbourne warrants that any part or components supplied by Shelbourne in accordance with this limited warranty are free from defects in material or workmanship from the date of sale to the original purchaser for 6 months. Shelbourne will at its option, either repair or replace the defective part free of charge. Original Purchaser shall be responsible for labour and all freight charges to and from the place where the warranty work is performed.

Shelbourne Reynolds Engineering Ltd. cannot be held responsible for any failures or safety implications arising from the use of non-genuine parts. Use of non-genuine parts may seriously affect the machine's performance and safety.

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SECTION 2

SAFETY PROCEDURES

2.1 ACCIDENT PREVENTION



The following safety instructions are applicable for all sections of this manual.

Accident programmes can only prevent accidents with the co-operation of the persons responsible for the operation of the equipment.

For the safety of yourself and others, operate equipment with care and do not take unnecessary risks, which could cause an accident.

Please read all safety instructions contained in this operator's manual with the utmost care and also observe all safety signs attached to the Stripper Header. Follow these instructions to prevent accidents. These instructions must also be made available to all other users. You are advised to refrain from any working methods which may be hazardous.

All relevant accident prevention regulations governing the operation of agricultural machinery, as well as other generally acknowledged health and safety regulations and road traffic regulations must be strictly observed.

The CMOM safety precautions should also be adhered to when using a Shelbourne Stripper Header.

The 'Safe Stop' procedure is mentioned throughout this manual. It is extremely dangerous to carry out any work on a machine while it is under power. The most important safety measure is to follow the Safe Stop procedure before carrying out any maintenance or adjustments, including dealing with a blockage or other problem:

The procedure is as follows:

- Put the handbrake on.
- Make sure the controls are in neutral (equipment made safe).
- Stop the engine.
- Remove the key

The following procedures will also need to be carried out as instructed in this manual.

- Lower the header onto the ground or fully raise and engage the combine's feeder house cylinder lock
- Fully lower the crop deflector or fully raise and engage the crop deflector safety stop

2.2 SAFETY ALERT SYMBOL



This safety alert symbol indicates an important safety message in this manual and on safety signs on the machine.

This symbol means:

**ATTENTION!
BECOME ALERT!
YOUR SAFETY IS INVOLVED!**

Carefully read and follow the safety message accompanying this symbol.

WHY IS SAFETY IMPORTANT TO YOU? ACCIDENTS DISABLE AND KILL
ACCIDENTS COST
ACCIDENTS CAN BE AVOIDED

2.3 SAFETY SIGNS

The safety signs appear on the Stripper Header at the locations shown in Section 2.6.

- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or become illegible.
- If original parts on which a safety sign was installed are replaced, be sure the repair part also bears the current safety sign.
- Safety signs are available from your Shelbourne dealer.

2.4 SAFETY SIGN INSTALLATION

If a safety sign needs to be replaced, use the following procedure.

- Be sure the installation area is clean and dry.
- Decide on the exact location before you remove the decal backing paper.
- Peel away one end of the backing paper exposing an area of the self-adhesive backing.
- Carefully place the sign in position allowing the exposed backing to fix to the part, correctly and smoothly.
- Slowly peel back the rest of the backing paper, smoothing the sign as it is applied.
- Small air pockets can be smoothed out or pricked with a pin.

2.5

2.6 SAFETY SIGN LOCATION

	<p>Part No.198845 01 Risk of serious crushing injury or death. Fully lower crop deflector or engage safety latch before working on machine.</p>		<p>Part No.193388 01 Risk of serious injury or death from flying objects. Stand clear. Materials and debris exiting at high speed.</p>		<p>Part No.193389 01 Risk of serious injury or death from rotor. Keep away. Stop engine and remove key before carrying out any work on the machine.</p>
	<p>Part No.800215 01 Risk of serious injury from crop deflector mechanism. Keep hands clear. Fully lower crop deflector or engage safety latch before working on machine.</p>			<p>Part No.193392 01 Moving parts under this guard. Do not open while engine is running. Failure to comply could result in death or serious injury.</p>	

Part No.TNF-0011
Risk of serious injury or death. Stop engine and remove the key before carrying out any work on the machine

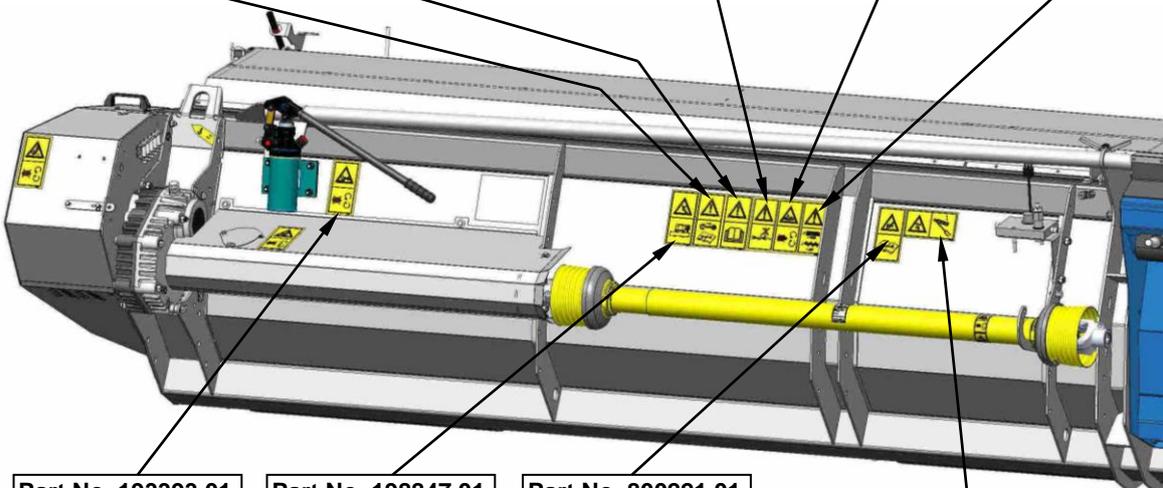
Part No.TNF-0011
Carefully read the operating manual before handling / operating the machine. Follow all safety instructions.



Part No.TNF-0012
Do not hang driveline on chain, use correct support.

Part No.TNF-0012
Rotating driveline can cause death. Do not remove driveline cover whilst engine is working.

Part No.TNF-0012
Do not run stripping rotor over 1000 rpm
Do not run auger over 200 rpm.



Part No. 193393 01
Rotating auger under top hood. Do not open top hood whilst engine is running. Failure to comply could result in death or serious injury.

Part No. 198847 01
Risk of serious injury or death from falling. Do not climb on machine.

Part No. 800221 01
High pressure fluid hazard, risk of being injected into the body. Keep all components in good order. Do not exceed system pressure of 225 bar.

Part No. 210435 01
Risk of serious crushing injury or death. Engage feeder house cylinder lock or fully lower to ground before working on machine.





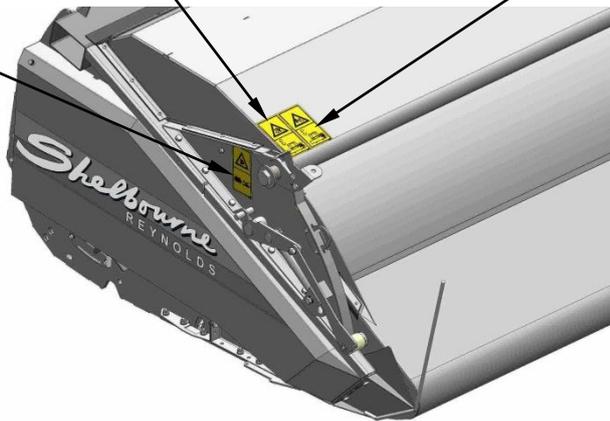
Part No.800215 01
 Risk of serious injury from crop deflector mechanism. Keep hands clear. Fully lower crop deflector or engage



Part No.193388 01
 Risk of serious injury or death from flying objects. Stand clear. Materials and debris exiting at high speed.



Part No.193389 01
 Risk of serious injury or death from rotor. Keep away. Stop engine and remove key before carrying out any work on



Part No. TNF-0012
 Rotating driveline can cause death. Do not remove driveline cover whilst engine is

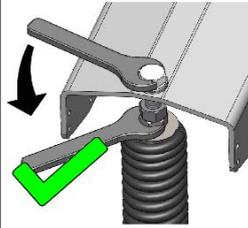
Part No. 610257 01
 Carefully read the operating and PTO manual before handling / operating the



Part No. 199995 01

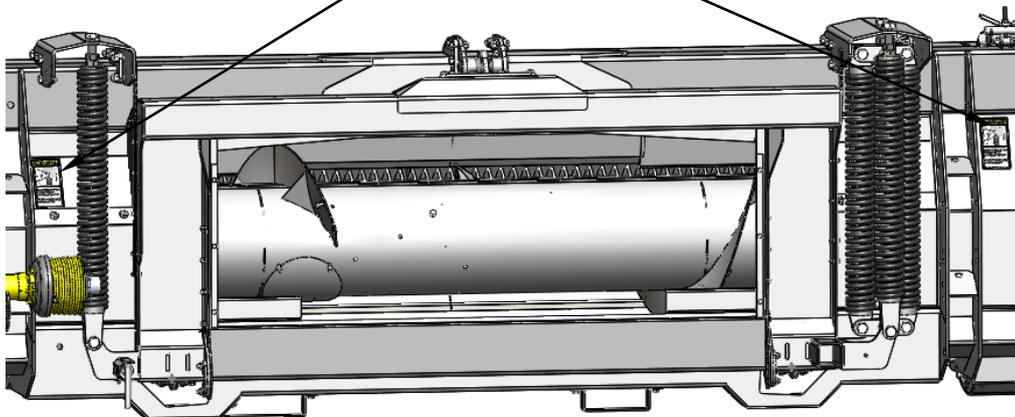
(Machines with single left hand spring and single outer right hand spring only)

CAUTION



Always hold spring insert with wrench when reducing spring tension

Rapidly releasing spring could cause injury



2.7 ACCIDENT PREVENTION WHEN PREPARING AND ADJUSTING THE STRIPPER HEADER FOR USE

Read the operator's manual thoroughly.

Ensure bystanders are at a safe distance when the Stripper Header is being moved or suspended above the ground while lifting.

Use the forklift brackets correctly when moving the Stripper Header with a forklift and ensure that the forklift has sufficient capacity to lift the machine.

Use the designated identified lifting points when lifting from overhead, and ensure that the slings / chains are rated accordingly, and that the angle of the slings / chains are set in accordance with lifting regulations.

Do not climb on the Stripper Header when attaching lifting slings or chains. Use approved steps in order to reach the lifting points.

Keep bystanders at a safe distance and wear Personal Protective Equipment (PPE) such as gloves to reduce the effect of pinching fingers and handling sharp parts, when preparing and adjusting the combine and header.

Employ suitable manual handling techniques when lifting and fitting components and PTO shafts. Ensure appropriate lifting equipment is used for heavier items.

Never work underneath a Stripper Header that is not properly supported. Ensure appropriate stands are placed under the machine and the machine is parked on firm level ground. Never rely on the forklift alone to support the header.

Remove the centre crop deflector shipping bracket and fit the centre support before removing the outer shipping brackets. Keep bystanders at a safe distance.(42' model only)

Keep fingers clear of crop deflector support when removing centre shipping bracket. Be aware of potential pinch points when removing shipping brackets and fitting centre support. Wear PPE, such as gloves.

Support the crop deflector with suitable stands or charge the hydraulic system when removing shipping brackets.

Check hydraulic components before charging the crop deflector. Ensure hoses are in good condition, joints are tight and the coupler is correctly installed.

When fitting the crop markers, lowering header stands or removing the crop deflector shipping brackets, ensure bystanders are kept at a safe distance, avoid working underneath the Stripper Header and ensure appropriate stands are placed under the machine.

Ensure that the rotor does not rotate freely when fitting the crop markers, or raising/lowering header stands to prevent finger entrapment.

Ensure the crop deflector stop latch is engaged or the crop deflector is fully lowered or adequately supported before fitting the crop deflector indicator.

Be aware of potential pinch points when fitting and adjusting adaptor plate springs and gauge wheel parts. Support parts to avoid finger entrapment and wear suitable PPE, such as gloves.

2.8 ACCIDENT PREVENTION WHEN ATTACHING AND DETACHING THE STRIPPER HEADER TO THE COMBINE

Read the operator's manual thoroughly.

The weight and size of the Stripper Header will influence the stability and manoeuvrability of the combine. Ensure that the combine is capable of handling the Stripper Header safely and maintaining stability. Consult the CMOM.

Ensure that the combine has sufficient capacity to lift the Stripper Header and the correct adaptor plate is fitted.

Follow the Safe Stop procedure when leaving the combine cab and before latching/unlatching the header onto the combine and locking/unlocking the header tilt pin.

The Stripper Header should be parked on level, firm ground for attaching and detaching. Ensure that the header stands are correctly lowered. Always raise the header stands once header is reattaching.

Observe the position of all bystanders in the area and ensure that they are at a safe distance.

Warn bystanders by sounding the horn several times before starting the engine and moving.

Follow the procedure described in this manual and the CMOM for header attachment and detachment.

Inspect the Stripper Header and combine prior to operating the machine and ensure that no person is working on or inside the machines.

Ensure that the feeder house cylinder lock is engaged before attempting to work in the vicinity of the Stripper Header when attaching or detaching.

Check that all the locking pins/points are fully engaged and the Stripper Header is safely and securely attached.

If parking the Stripper Header onto a trailer ensure it is correctly located and secured to the trailer before removing from the combine.

Ensure that the adaptor plate springs have been adjusted and the header is levelled before releasing the tilt locking pin. Only release the tilt locking pin when the header is fully raised and the feeder house cylinder lock is engaged.

Be aware of potential finger pinch points when latching/ unlatching the header onto the combine and locking/unlocking the header tilt pin.

Ensure that the rotor does not rotate freely when or raising/lowering header stands to prevent finger entrapment.

Use suitable PPE, such as overalls, gloves, goggles and face/dust masks when attaching and detaching the Stripper Header to the combine to prevent exposure to dust.

Support the header stands when raising or lowering and be aware of potential pinch points.

Use approved steps or the combine access ladder as described in CMOM in order to access the adaptor plate hook (if fitted).

Employ suitable manual handling techniques when raising or lowering the gauge wheels, use the handle when adjusting and be aware of potential pinch points.

Wear suitable PPE, such as safety footwear, when working on the machine.

2.9 ACCIDENT PREVENTION WHEN USING THE HYDRAULIC SYSTEM

Read the operator's manual thoroughly.

Due to the possibility of oil contamination on your hands it is recommended to use PPE, gloves, when handling hydraulic hose connectors.

Follow the Safe Stop procedure before connecting or disconnecting the hydraulic coupler.

Ensure that the feeder house cylinder lock is engaged or the machine is fully lowered to the ground and the Stripper Header is locked to the combine before connecting or disconnecting the hydraulic coupler.

The crop deflector must be all the way down or supported on the safety stop when connecting or disconnecting the hydraulic coupling.

Ensure that the combine hydraulic system is at zero pressure before connecting the hydraulic coupling.

Keep bystanders at a safe distance when operating the hydraulic system.

Hydraulic systems can generate extremely high pressures. All piping, hoses and connections must therefore be checked regularly for leakage and visible external damage.

Ensure that the combine does not generate more than 225 bar (3263 psi) of pressure.

Use proper and thorough means of searching for leakage and repair all damage immediately.

Regularly inspect the condition of all hydraulic hoses and replace any damaged hoses.

Spurting hydraulic oil can cause injuries and fires. Seek medical advice immediately in the event of injury.

2.10 ACCIDENT PREVENTION WHEN USING THE PTO SHAFT

Read the operator's manual thoroughly.

In conjunction with the following safety measures, always refer to the safety manual supplied separately with the PTO shaft.

Ensure that the Safe Stop procedure is implemented prior to attaching, detaching, greasing, servicing or changing the shear bolt on the PTO shaft.

Keep the PTO shaft horizontal during handling to prevent the halves from sliding apart, which could cause injury or damage the guarding.

Use suitable means to move heavy PTO shafts and employ suitable manual handling techniques.

Use only the PTO shaft, which is supplied with the Stripper Header and is intended for use with the Stripper Header.

Ensure that it is fitted with the prescribed protective equipment (protective tube and funnel-shaped PTO shaft guard must be fitted).

Be aware of the risk of pinching your fingers / hand between the guard and the end yoke of the PTO shaft.

Do not modify the length of the supplied PTO shaft, guard cones and tubes.

Ensure that the PTO shaft is fitted with the correct yoke for the combine. Do not use PTO adaptors.

Ensure the guards are secured in such a way that they cannot rotate with the shaft and the PTO guard safety chains are fitted and secure.

Before starting work ensure the PTO end yokes are properly engaged.

Be absolutely sure there is nobody standing in dangerous proximity to the Stripper Header when you switch on the PTO shaft. Contact with the PTO shaft can cause death.

Do not wear loose clothing or jewellery that could become entangled with the driveline and tie back long hair.

2.11 ACCIDENT PREVENTION WHEN INITIALLY INSTALLING THE STRIPPER HEADER ONTO THE COMBINE

Read the operator's manual thoroughly.

Read the CMOM prior to installing the Stripper Header and working on the combine.

Ensure that the Safe Stop procedure is implemented prior to installing the monitor unit, working on, inspecting or adjusting the Stripper Header or combine.

Use the combine access steps when climbing onto the combine as advised in CMOM or use approved steps to gain access when installing the monitor unit into the combine.

Use suitable personal protective equipment (PPE) such as gloves when installing monitor unit, combine grates, working on or adjusting the Stripper Header or combine and be cautious of sharp edges.

Employ suitable manual handling techniques when lifting the combine grates or ensure appropriate lifting equipment is used and ensure grates are safely supported.

Use suitable PPE, such as overalls, gloves, goggles and face/dust masks when working on, adjusting or inspecting the Stripper Header or combine to prevent exposure to dust.

The monitor unit should be installed by experienced personnel. Isolate power and identify wire polarity before installation. Consult CMOM before commencing installation.

Ensure that the feeder house cylinder lock is engaged, all the locking pins/points are fully engaged and the Stripper Header is safely and securely attached to the combine before attempting to work on the machine and when possible lower the machine fully to the ground.

Be aware of pinch points when adjusting the adaptor plate and keep fingers clear. Ensure the Stripper Header is lowered to the ground before adjusting the adaptor plate.

Take care when adjusting the combine.

Inspect the hood hand pump hydraulic system prior to use and ensure that bystanders are at a safe distance when raising the hood.

Always use the hood cylinder safety stop whenever the hood is raised.

Use approved steps or the combine access ladder to gain access to the auger trough. Do not climb on the machine.

Take care while in the auger trough checking auger clearances as surfaces can be slippery.

Ensure that no one is in the auger trough and hands and limbs are clear before adjusting the auger clearance at the ends.

Do not to put hands under auger when adjusting the centre auger clearance, be aware of potential pinch points.

Be cautious of hot drive components when adjusting the auger at the left hand end or inspecting the machine and use suitable PPE, such as gloves.

Ensure the crop deflector stop latch is engaged or the crop deflector is fully lowered before working on or inspecting the machine.

Read the CMOM prior to operating the machine.

Ensure all guards are in place and secured and the hood is closed before starting the machine.

Inspect the Stripper Header and combine prior to operating the machine, warn bystanders by sounding the horn several times before starting the engine and ensure bystanders are at a safe distance.

Ensure the crop deflector hydraulic system is inspected and maintained.

Be aware of pinch points when adjusting the crop deflector support and use a jack to raise the crop deflector when setting the support.

Always prop the crop deflector when adjusting or checking the centre support and wear suitable PPE, such as gloves, to protect fingers.

Ensure rotor is prevented from turning when working in close proximity to the rotor.

Keep fingers clear of adaptor plate and mainframe when adjusting the adaptor plate turnbuckles.

Always hold the adaptor plate single spring threaded adjuster with wrench when reducing spring tension to prevent rapid spring tension release.

Employ suitable manual handling techniques when raising and lowering the gauge wheels. Use the handle when adjusting and be aware of potential pinch points.

Wear suitable PPE, such as safety footwear when working on the machine.

2.12 ACCIDENT PREVENTION WHEN OPERATING THE MACHINE

Read the operator's manual thoroughly.

Read the CMOM prior to operating the machine.

The Stripper Header must not be put into operation until the user has been given proper initial instructions either by the dealer or by a Shelbourne Reynolds representative.

It is the owner's responsibility to ensure that anybody else who uses the machine is competent and has received instructions or training.

Inspect the Stripper Header and combine prior to operating the machine and ensure that no person is working on or inside the machines. Warn bystanders by sounding the horn several times before starting the engine and ensure bystanders are at a safe distance.

Ensure all guards are in place and secured and the hood is closed before starting the machine. Replace or repair any damaged or missing guards immediately. Do not operate machine with guards removed.

Do not permit anyone other than the operator to ride in the combine, except for periods of training or short periods of observation. Do not allow riders on the combine or header.

Keep children away from and off the machine at all times

Ensure that the Safe Stop procedure is implemented prior to working on the machine or when leaving the combine cab.

In the event of a malfunction, immediately cease operation and implement the Safe Stop procedure.

Inspect hydraulic components prior to use and ensure that they are maintained.

When operating the Stripper Header ensure that the combine cab doors and windows are closed. If this is not possible or when working on the machine use suitable PPE, such as overalls, gloves, goggles and face/dust masks.

Be aware of and avoid overhead power lines and pylons when operating the combine.

Ensure that the combine is capable of safely handling the Stripper Header and remains stable when operating.

Inspect machine for signs of wear or component failure and remove crop material from heat generating components in order to reduce the likelihood of fire.

Use the hood cylinder safety stop whenever the hood is raised.

Use approved steps or the combine access ladder to gain access to the auger trough, do not climb on the machine and take care while in the auger trough checking auger clearances as surfaces can be slippery.

Keep hands clear of pinch points and use suitable PPE, such as gloves, when working on the machine or clearing blockages from the auger or rotor to prevent contact with sharp objects and edges.

Ensure that the combine feeder house cylinder lock is engaged or the machine is fully lowered to the ground before attempting to work on the machine.

Check to ensure all the locking pins/points are fully engaged and the Stripper Header is safely and securely attached to the combine before attempting to work on the machine.

Ensure the crop deflector stop latch is engaged or the crop deflector is fully lowered before working on or clearing blockages from the machine.

Be aware of the risk of pinching your fingers / hand between the guard and the end yoke of the PTO shaft and ensure it is correctly supported when changing the shear bolt.

Support the skids or rollers adequately when adjusting and employ suitable manual handling techniques when lifting and use suitable PPE such as gloves.

Be cautious of hot drive components when adjusting or changing the XCS rotor speed and use suitable PPE, such as gloves.

Be careful when fitting drive belt to prevent finger crushing and employ suitable manual handling techniques when lifting parts, such as pulleys.

Employ suitable manual handling techniques when raising and lowering the gauge wheels, use the handle when adjusting and be aware of potential pinch points.

Wear suitable PPE, such as safety footwear, when working the machine.

Ensure that the adaptor plate springs have been adjusted and the header is levelled before releasing the tilt locking pin. Only release the tilt locking pin when the header is fully raised and the feeder house cylinder lock is engaged.

Be aware of potential finger pinch points when locking and unlocking the header tilt pin.

2.13 ACCIDENT PREVENTION WHEN TRANSPORTING STRIPPER HEADER

Read the operator's manual and CMOM thoroughly.

When transporting the Stripper Header on a trailer use a Shelbourne approved trailer and use a towing vehicle with sufficient capacity.

If parking the Stripper Header onto a trailer ensure it is correctly located and secured to the trailer before removing from the combine.

Ensure the crop deflector is fully lowered.

Ensure that all braking systems and lighting systems on the combine or towing vehicle and trailer (if using a trailer) are in full working order and that they can be fully and correctly operated.

Before travelling with the Stripper Header on the highway clear the machine of loose dust/debris.

Prior to travelling on the highway, fully lower the crop deflector and disconnect the hydraulic connectors and PTO shaft from the combine, to prevent inadvertent operation.

No person other than the operator may be allowed to ride in the combine. Do not allow riders on the combine.

Fully secure guards, covers, PTO shafts, hydraulic couplings and other components before travelling on the highway.

Road traffic regulations must be observed when taking the Stripper Header on roads, paths and other public places.

Observe the maximum permissible width for road transport and fit all necessary safety signs and guards.

Always release the header locking pin when transporting the Stripper Header to prevent the header from tilting.

Raise the gauge wheels to “transport position” when transporting the header.

Do not support the Stripper Header on the rotor or the header stands when on a trailer.

2.14 ACCIDENT PREVENTION WHEN CARRYING OUT MAINTENANCE, CLEANING & STORAGE

Read the operator’s manual thoroughly.

Ensure that the Safe Stop procedure is implemented prior to working on the machine or leaving the combine cab.

Ensure that the combine feeder house cylinder lock is engaged or the machine is fully lowered to the ground before attempting to work on the machine.

Check to ensure all the locking pins/points are fully engaged and the Stripper Header is safely and securely attached to the combine before attempting to work on the machine.

Ensure the crop deflector stop latch is engaged or the crop deflector is fully lowered before working on the machine.

Be cautious of hot drive components when maintaining the machine and use suitable PPE, such as gloves.

Do not work around the machine in loose clothing that might get caught in moving parts.

Use suitable PPE, such as overalls, gloves, goggles and face/dust masks when working on the Stripper Header to prevent exposure to dust.

Use suitable PPE, such as gloves, when working on the Stripper Header. Be cautious of sharp edges and keep hands clear of pinch points.

Be aware of the risk of pinching your fingers / hand between the guard and the end yoke of the PTO shaft and ensure it is correctly supported when connecting or disconnecting.

Ensure all guards are in place and secured and the hood is closed before starting the machine. Replace or repair any damaged or missing guards immediately.

Be careful when turning the drive belt or adjusting the gearbox position in order to prevent finger crushing.

Do not put your hand between pulley sheaves, use a wooden block to securely wedge the pulleys if required during maintenance.

Use suitable PPE, such as gloves, to prevent contact with oil.

Use approved steps or the combine access ladder to gain access to the auger trough. Do not climb on the machine, as surfaces may be slippery when wet and/or dusty.

Follow the recommended precautions as advised by pressure/hot washing or air compressor equipment manufacturers when using this equipment to clean the Stripper Header.

If parking the Stripper Header onto a trailer ensure it is correctly located and secured to the trailer before removing from the combine.

The Stripper Header should be parked on level firm ground.

Do not climb on or over parked or stored machines.

Ensure that the gauge wheels are lowered to the ground before carrying out maintenance and lubrication on the gauge wheels.

Wear suitable PPE, such as safety footwear when working on the machine.

When inflating the tyres do not exceed the stated pressure. Always use an air line with gauge, pressure control valve and clip on valve connectors and do not jam the control valve open.

Inspect tyre for damage and wear before inflating and always stand outside the trajectory of any potential explosion.

Keep out of auger trough while turning the auger to align grease point.

Take care while in the auger trough greasing auger, as surfaces can be slippery.

Inspect the hood hand pump hydraulic system prior to use and ensure that bystanders are at a safe distance when raising the hood.

Use the hood cylinder safety stop whenever the hood is raised.

2.15 NOISE EMISSIONS

Sound pressure level measured at operator's seat in combine cab.	Just combine running. (full operating speed)	Combine door closed.	74 dB(A)
		Combine door open.	92 dB(A)
	Combine and Stripper Header running. (full operating speed)	Combine door closed.	74 dB(A)
		Combine door open.	92 dB(A)

Sound pressure levels measured all around the combine and Stripper Header at a distance away of 1 metre and a height of 1.6 metres ranged from 96 -104 dB (A).

(The above test results were obtained using a randomly selected / modern combine).

If the door or window of the combine is open while operating, it is recommended that personal hearing protectors are worn to protect the operator.

2.16 INTENDED USE

The Stripper Header is based on state-of-the-art technology and is manufactured in accordance with recognized safety requirements. Nevertheless the use of the header does not preclude the risk of injury to the user or third parties and/or the risk of damage to the header itself or to other materials or items of equipment.

Always make sure that the Stripper Header is in a technically perfect condition and that it is used properly and for its intended purpose and entirely in accordance with the instructions given in this manual. Any malfunctions or defects which might affect the safe operation of the header must be immediately eliminated.

The Stripper Header will be mounted to a combine harvester and operated from the cab seating position.

The Stripper Header must be used, maintained and repaired only by persons who are familiar with its working and have been made fully conversant with the risks involved.

Original equipment manufacturer (OEM) replacement parts and accessories from Shelbourne have been specially designed for use with the Stripper Header. Accessories not supplied by Shelbourne have not been tested and approved. The installation and/or the use of non-Shelbourne products may under certain circumstances have a negative influence on the given design features of the header and may therefore adversely affect its safe and reliable operation and your safety. Shelbourne cannot therefore be held

liable for damage or injury caused by the use of non-OEM replacement parts or accessories.

The Stripper Header is intended for use on typical farms and to be employed in harvesting cereal and rice crops. Any uses other than those for which the header is intended, such as transportation, will automatically exempt Shelbourne or the Shelbourne dealer from liability in respect of ensuing damage. Such cases of improper use will therefore be entirely at the user's own risk.

All relevant accident prevention regulations, as well as other generally acknowledged health and safety regulations and road traffic regulations must be strictly observed.

Improper use also comprises failure to observe the instructions given in this operator's manual and the manufacturer's maintenance and servicing requirements.

2.17 NO LIABILITY FOR CONSEQUENTIAL DAMAGE

Even though the Stripper Header has been manufactured with the utmost care and you are using it properly, fluctuations and interruptions in performance may still occur.

It is the duty of the operator/user to ensure that foreign objects, e.g. stones, metal objects etc. are not allowed to enter the header. Failure to observe this may result in damage to the header and/or injury to the operator/user and/or damage to the combine.

Neither Shelbourne nor its dealers shall be liable for any consequential damage.

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3.1 DESCRIPTION

The Stripper Header consists of a main frame (a), which is connected to the combine via an interchangeable adaptor plate (b). Different adaptor plates are available to suit various models of popular combines. The adaptor plate and mainframe are connected via a pivot (c) which allows the Stripper Header to laterally tilt independently of the combine. Adjustable adaptor plate springs (d) link the adaptor plate and the mainframe and are used to level the header. Adjustable turn buckles (e), located underneath the mainframe also link the adaptor plate and main frame. The main frame supports all the other components and is centrally mounted to the adaptor plate.

At the front of the machine are three stripping rotors (f), which harvest the crop. Between each rotor is a division plate (g) which supports the rotors. The rotors are fitted with a patented anti wrap system. Above the stripping rotor is the crop deflector (h), which deflects the uncut crop to create a seal in front of the stripping rotor. The crop deflector's position is adjusted by the combine's hydraulic (reel lift) system and is connected via a hydraulic coupling (i). A colour-coded indicator (j), provides a visual position guide of the crop deflector to the operator. The 42' model has a central crop deflector support (k).

The harvested crop is guided, via the underside of the crop deflector to the auger trough (l), where the auger (m) transports the crop to the adaptor plate. The auger has spiral flights and runs at a fixed speed, nominally 190 rpm. Bolt on auger paddles (n), in the centre of the auger, propel the crop into the combine via an opening in the adaptor plate. The auger is protected by a friction slip clutch (o). The 36' & 42' models have a split auger with an adjustable division support plate (p). The 32' model has a one piece auger, which does not have a central support.

The auger and auger trough are covered by the hood (q) which pivots and is raised by a hydraulic cylinder, operated via a hand pump (r), in order to allow access.

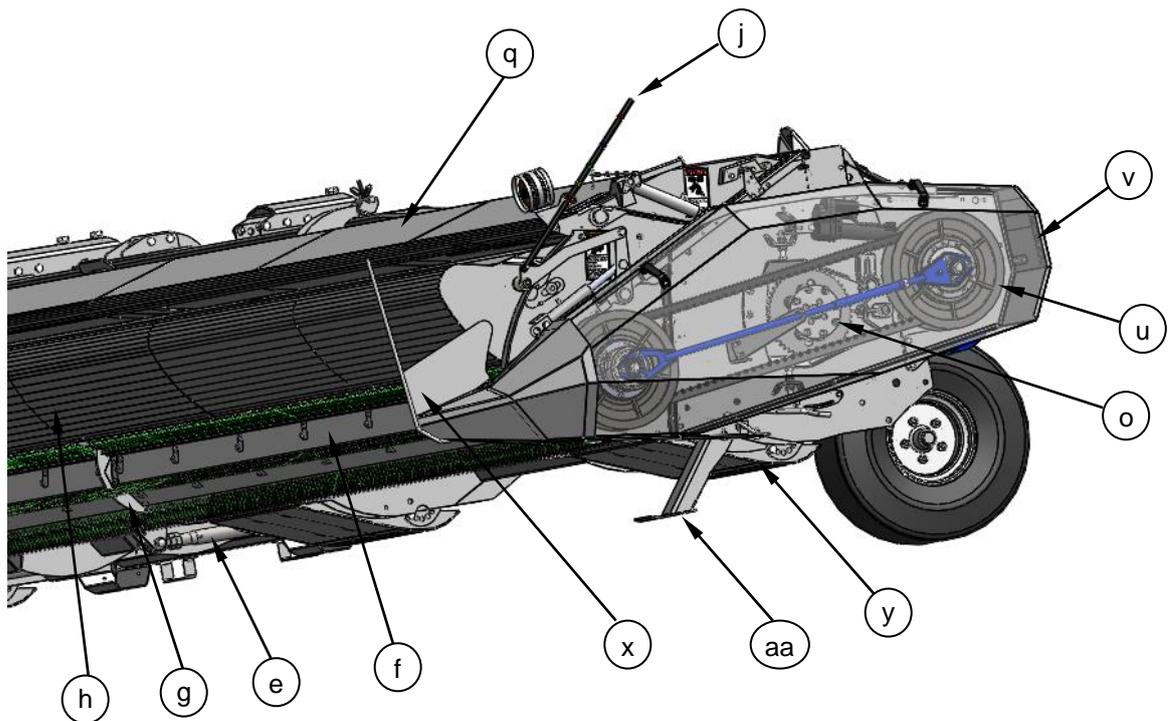
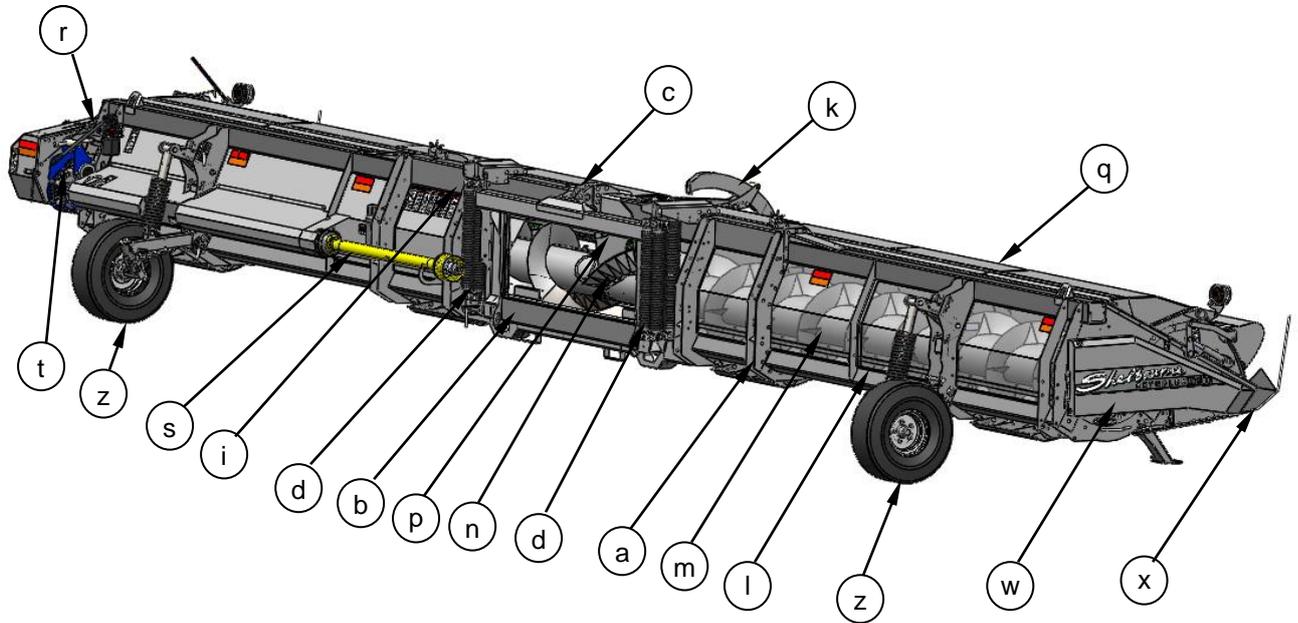
A PTO shaft (s), fitted with a shearbolt, connects the output drive from the combine to the Stripper Header gearbox (t). The gearbox can be fitted with different drive ratios to suit different models of combines. The drive is transferred to the stripping rotor by one of three different belt drive systems (u). Variable speed drive is fitted to the XCV models and offers infinitely variable rotor speed, between approximately 430 and 830 rpm. The speed is controlled from the combine cab. XCS models can be fitted with one of two types of step drives, either HTD (cogged belt) or Vee belt. The rotor speeds of both can be altered in defined steps by changing the combinations of the input and output pulleys attached to the gearbox and stripping rotor.

The left hand end drive guard (v) covers the auger and rotor drive and can be removed in order to gain access for maintenance. A rotor and auger speed monitor provides an in cab display with a semi-automatic alarm set feature in order to monitor performance. The sensors for this system are protected by the right hand end guard (w). A fixed marker rod type divider (x), positioned at each end of the stripping rotor provides a visual guide to the width of the Stripper Header.

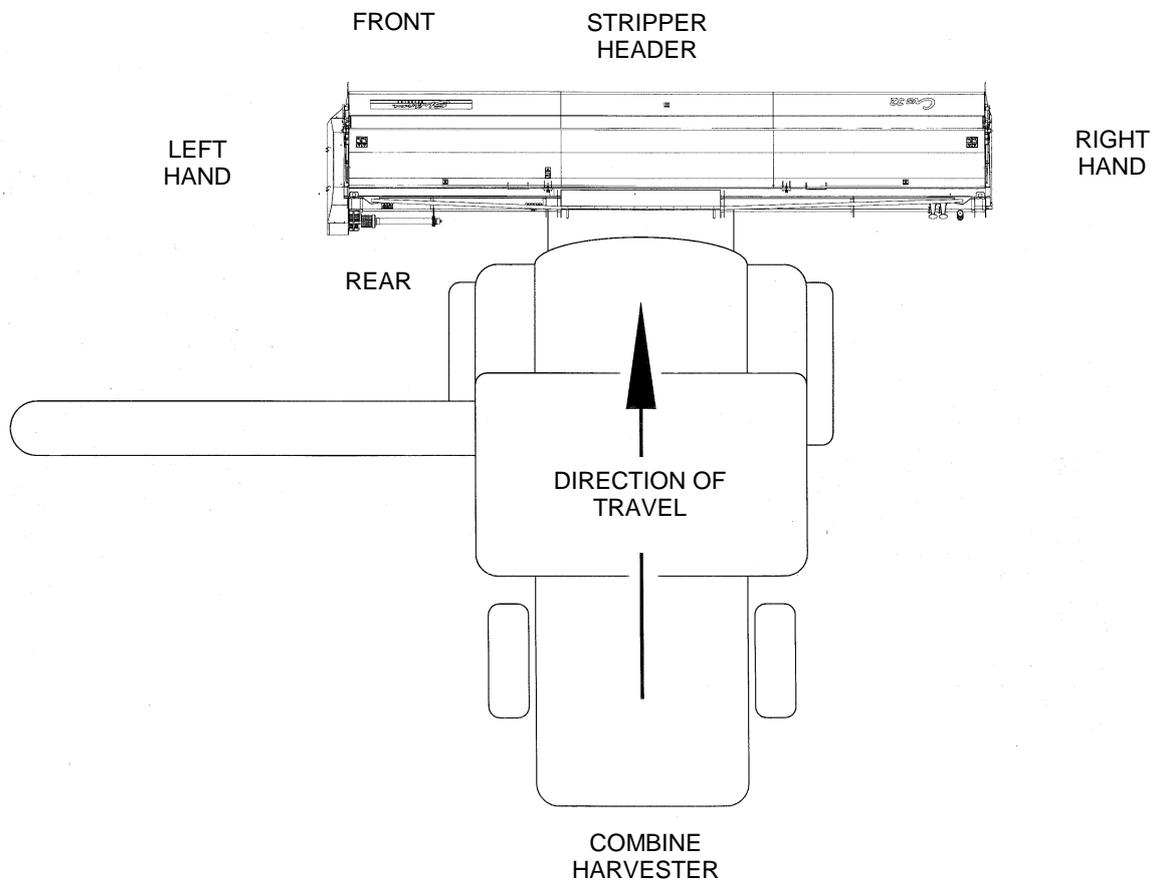
Adjustable skids (y), positioned underneath the header prevent the stripping rotor from

contacting the ground. Spring loaded adjustable gauge wheels (z) follow the contours of the ground and laterally pivot the stripper header.

Pivoting header stands, (aa) are fitted to the underside front corners of the mainframe which have to be folded down when the Stripper Header is unhitched from the combine onto the ground.

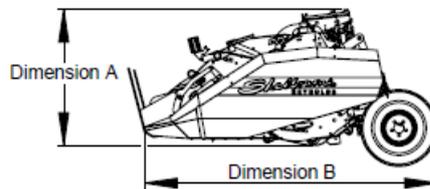
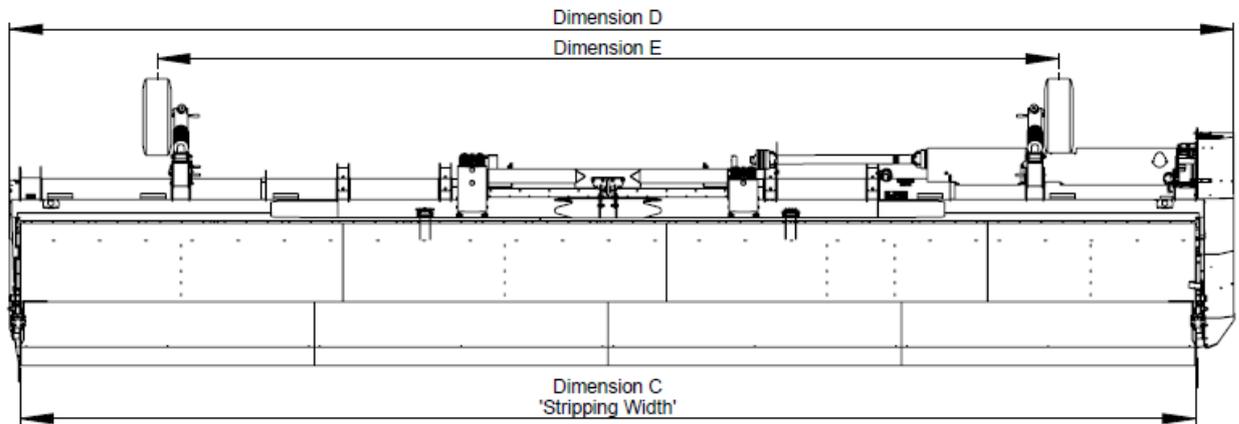


Right, left, front and rear of the machine are termed in this manual as viewed from the driver's seat of the combine.



3.2 TECHNICAL SPECIFICATION

Sizes and weights of machines are as follows: (all dimensions and weights are approximate).



Model	A	B	C	D	E	WEIGHT (approx.)
XCV 32 XCS 32	1233mm 4'1"	2698mm 8'10"	9636mm 31'7"	10079mm 33'1"	7961mm 26'1"	3700 kg 8160 lbs
XCV 36 XCS 36	1233mm 4'1"	2698mm 8'10"	10836mm 35'7"	11279mm 37'	8311mm 27'3"	3960 kg 8730 lbs
XCV 42 XCS 42	1233mm 4'1"	2698mm 8'10"	12636mm 41'5"	13079mm 42'9"	10111mm 33'2"	4460 kg 9830 lbs

For complete details of the correct sizes and fitting for the combine on which the Stripper Header is intended to be used, please contact your Shelbourne dealer.



Refer to Section 2 for accident prevention information

To prevent damage to the Stripper Header, the machine should be moved by one of the following methods:

- Attaching to a combine (see Section 5).
- Using a forklift underneath the header.
- Overhead lifting by slinging the machine.
- On a trailer which supports the header in the correct positions.

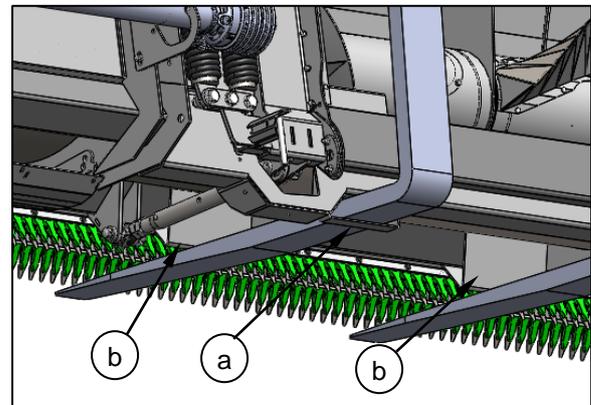
4.1 FORKLIFT METHOD



Refer to Section 2.7 for accident prevention information

Ensure that the forklift has sufficient capacity to lift the Stripper Header. The machine weight is shown on the serial number plate and also Section 3.2 of this manual. The rated capacity needs to be at 750mm (30") from the back end of the tine.

Approach the header from the rear and slide the forks underneath the rear beam into the straps (a) and underneath the forklift support plates (b). This will ensure that the tine does not contact the stripping rotor. Use a piece of wood to prevent the rear of the tine carriage contacting the adaptor plate.



Slowly raise the forklift mast and tilt backwards.

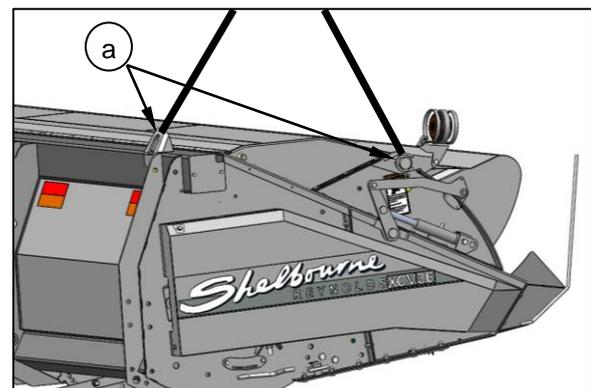
4.2 OVERHEAD LIFTING METHOD



Refer to Section 2.7 for accident prevention information

Use sling points when lifting the machine from overhead. There are two sling points on the right hand end (a) and two in the same position on the left hand end.

Adjust the slings accordingly to lift the header squarely.



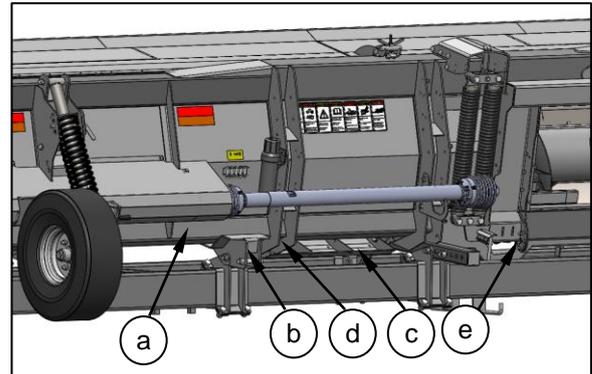
4.3 MOVING WITH TRAILER



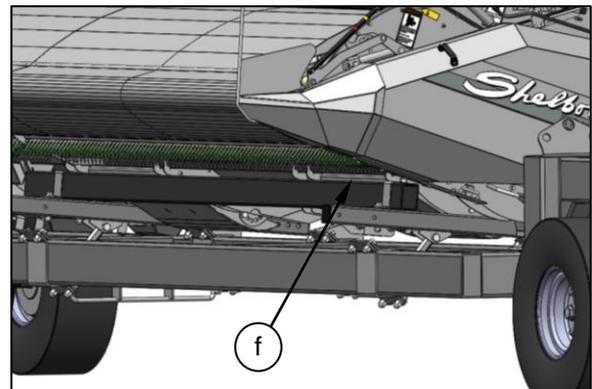
Refer to Section 2.13 for accident prevention information

The Stripper Header can be transported with a Shelbourne approved trailer that supports the machine suitably to prevent accidents and reduce the risk of damage.

The Stripper Header should be supported under the rear bottom beam (a). The trailer supports (b) should be placed outside of the inner skids (c), close to the outer back angle (d). The machine must be supported on both sides.



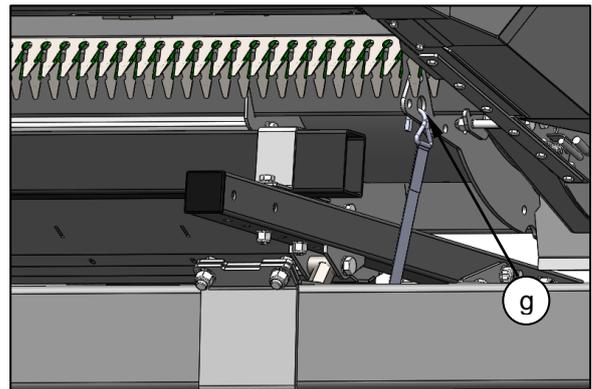
The front of the Stripper Header should be supported along the front of each of the four skids (f).



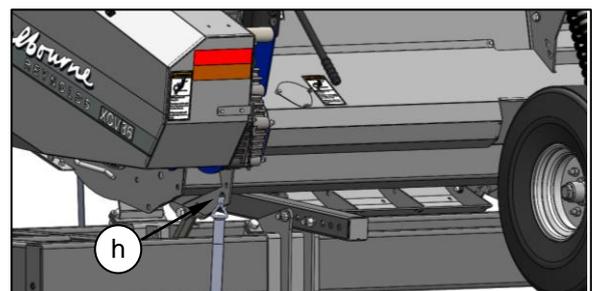
Do not support the Stripper Header on the rotor or the header stands.

Ensure that the Stripper Header is securely attached to the trailer with suitable straps.

Use the tie downs points (g & h) provided at each end of the mainframe.



Straps can be fixed either side of the lower beam of the adaptor plate (e), onto the combine latching points. These straps can be secured diagonally to prevent the machine from sliding along the trailer.



SECTION 5

HEADER ATTACHMENT / DETACHMENT



Refer to Sections 2.8, 2.9 and 2.10 for accident prevention information

The Stripper Header is configured to different models of combine at the factory. This manual contains information for the combines listed below.

Use this information in conjunction with the CMOM.

Please contact your Shelbourne dealer and consult the CMOM for information relating to attaching a Stripper Header to other models and makes of combine not listed below.

John Deere 60, 70 & S series.

Case IH 10, 20, 30, 40 and 88 series.

New Holland CR and CX.

Claas/CAT Lexion.

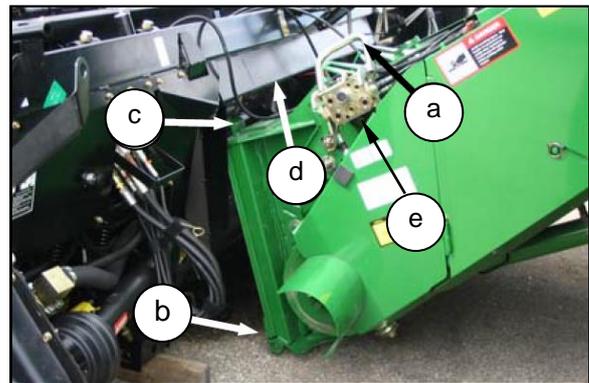
AGCO.

5.1 HEADER ATTACHMENT

The following section contains instructions for attaching the Stripper Header to the combine harvester.

5.1.1 John Deere 60, 70 & S series

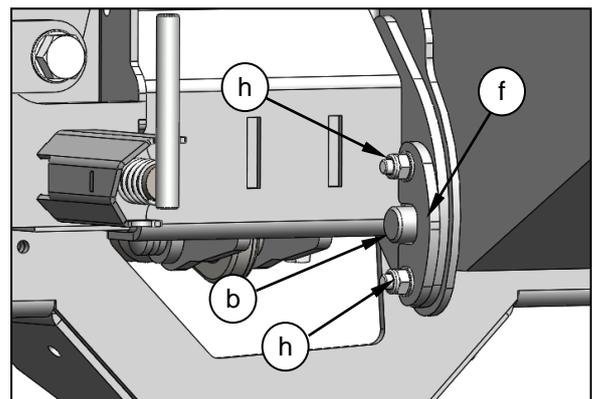
Push the handle (a) up, on the combine multicoupler (e) towards the feeder house to fully retract the pins (b) at the bottom corners of the feeder house.



Shelbourne picture required

Drive the combine slowly forward, ensuring the feeder house is centred and parallel with the adaptor plate opening, until the feeder house saddle (c) is directly under the adaptor plate top beam (d).

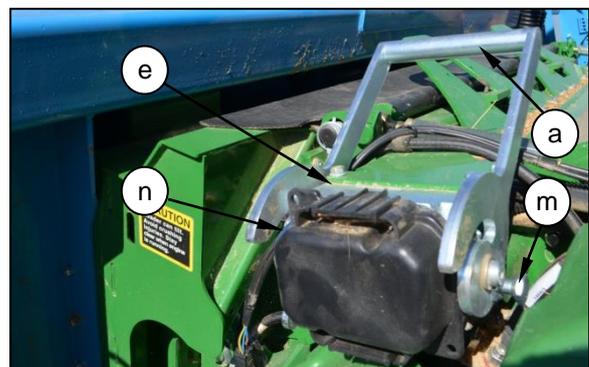
Raise the feeder house to lift the header, ensuring that the feeder saddle is properly engaged in the adaptor plate, then fully raise the header.



 **Stop the machine and implement the safe stop procedure**

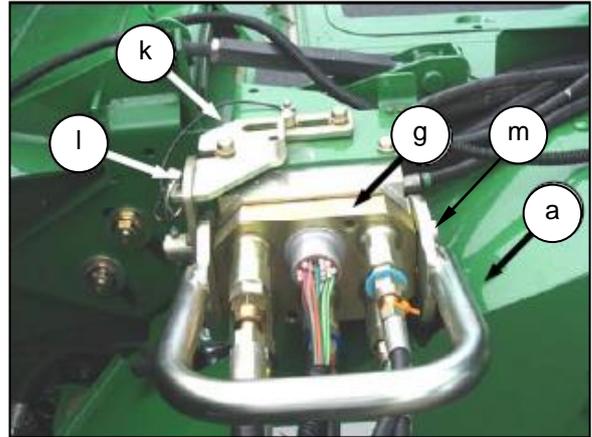
 **Engage the combine's feeder house cylinder lock**

Pull down handle (a) to engage the locking pins (b) in the adaptor plate. Ensure the pins (b), on both sides of the feeder house, are fully engaged and protrude from the adjuster plate (f). To adjust this, slacken the nuts (h) and slide the adjuster (f) plate up or down. Position the adjuster plate (f) so there is a small gap between it and the underside of the locking pin (b). Re-tighten the bolts.



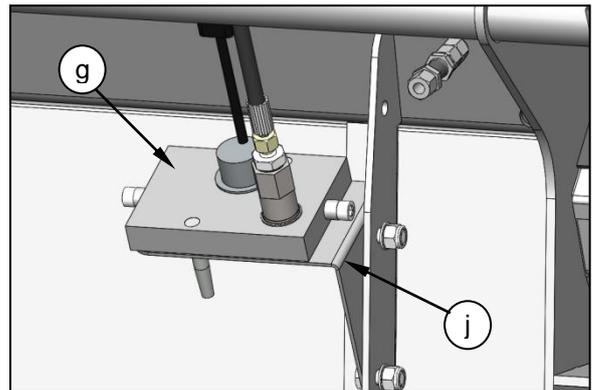
Push up the multicoupler handle (a) to the "nearly up position", remove the plastic cover (n) from combine multicoupler (e) and clean the multicoupler face.

Remove the coupler (g) from the storage bracket (j) on the header and locate it onto the receptacle multicoupler on the feeder house. Pull the handle (a) to a horizontal position so that the dowels are engaged into the handle radial slots.



Ensure the button (m) engages to lock the handle (a) or slide latch (k) across and secure with the linchpin (l).

Store the plastic cover (n) on the storage bracket (j).



Connect the PTO shaft and monitor electrical connectors, then raise the header stands and release the adaptor plate pivot locking pin, as described in Section 5.1.6.

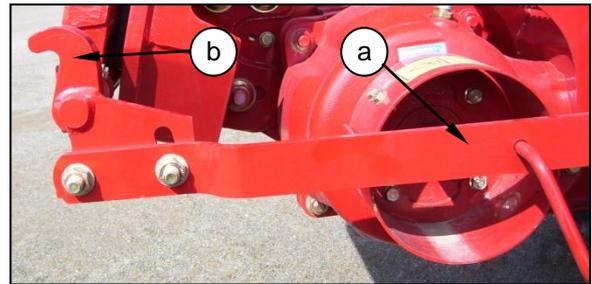
 **Refit all guards**

NOTE: The XCV and XVS Stripper Header cannot be fitted to John Deere combines with a pivot block (p) style feeder house.

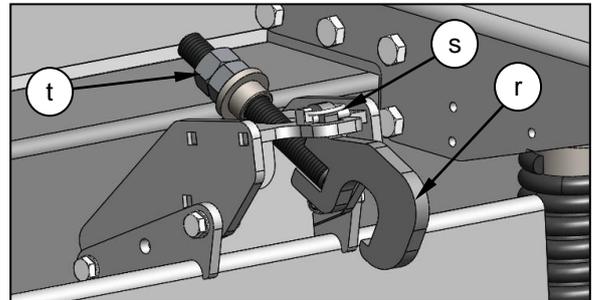


5.1.2 Case IH 10, 20, 30, 40 & 88 series

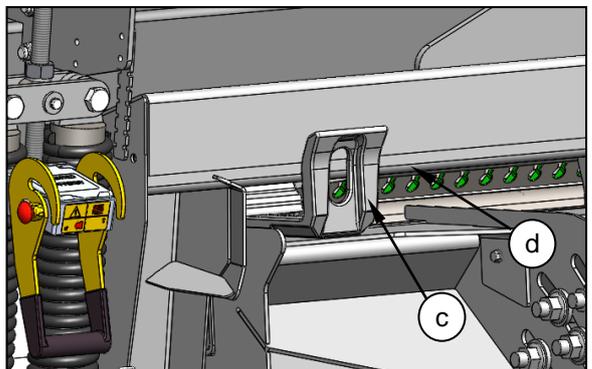
Ensure the handle (a) is positioned so that the hooks (b) can engage in the adaptor plate.



Check that the adaptor plate hook (r) is in the raised position and secured in place with the linchpin (s).



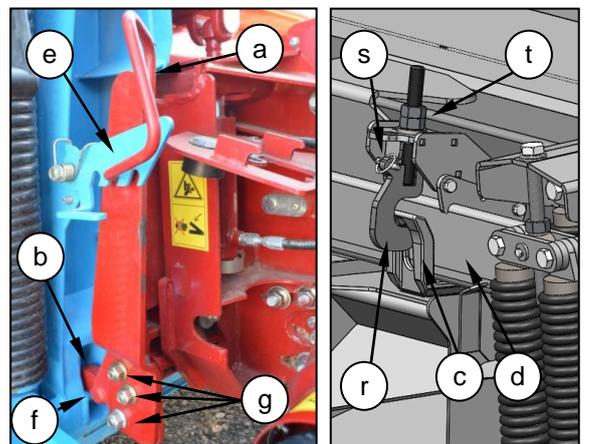
Drive the combine slowly forward, ensuring the feeder house is centred and parallel with the adaptor plate opening, until the feeder house saddle (c) is directly under the adaptor plate top beam (d).



Raise the feeder house to lift the header, ensuring that the feeder saddle is properly engaged in the adaptor plate, then fully raise the header.

-  **Stop the machine and implement the safe stop procedure**
-  **Engage the combine's feeder house cylinder lock**

Push the handle (a) towards the header to engage the hooks (b) on both sides of the feeder house. Ensure a slot in the locking plate (e) engages in the handle to lock the handle in place.

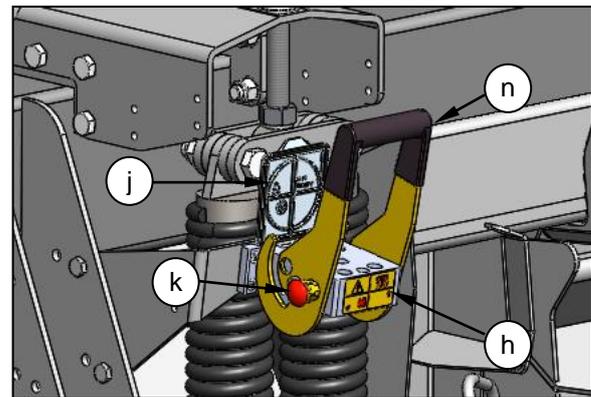


If the hooks (b) do not fully engage the pins (f) on the adaptor plate when the handle (a) and the locking plate (e) are engaged, loosen the bolts (g) and adjust the hooks as required, so that some resistance is felt when the locking plate (e) is engaged with the handle (a). Retighten bolts.

Remove the linchpin (s) from the adaptor plate hook (r) and insert the hook into the hole in the feeder house saddle (c). Tighten the nuts (t) to pull the adaptor plate top beam (d) down onto the feeder house saddle (c). Lock the two nuts (t) together and refit the linchpin (s).

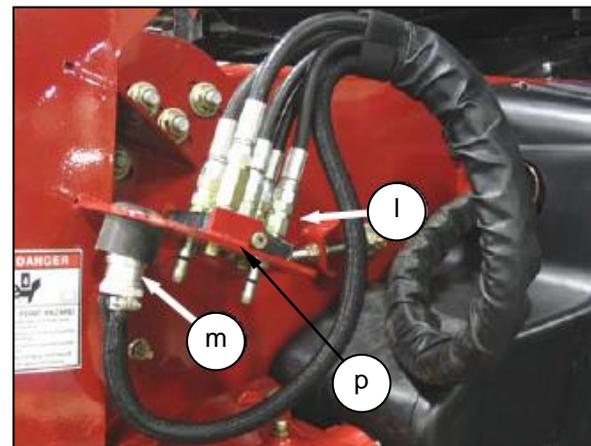
Recheck to ensure the hooks (b) are fully engaged on the pins (f). If they are not, adjust the handle (a) as described above.

To connect the combine hydraulic quick coupler (l) to the header multicoupler (h), open the cover (j), then depress the red button (k) and raise the handle (n) up to the “fully open” position.



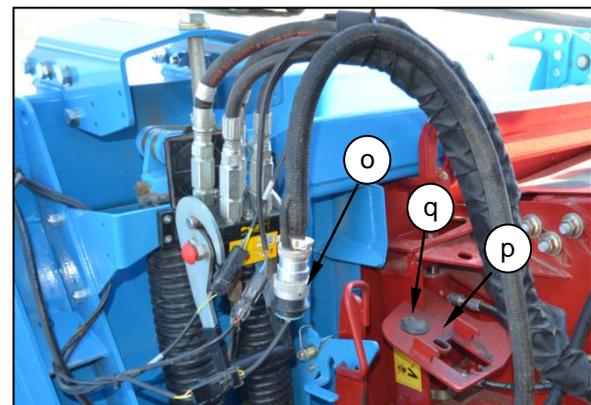
Remove the combine coupler (l) from its storage position (p) and clean the mating surfaces.

Position the combine coupler (l) onto the header multicoupler (h) and lower the handle (n) to engage the pins.



Push the handle (n) down to the “closed position” until the red lock button (k) snaps out.

Remove the electrical connector (m) from its storage position on the feeder house and connect to the plug (o) on the rear of the Stripper Header. To do this align the lugs on the connector with the slots in the plug, push together and turn the collar on the connector to lock it in place.



Connect the PTO shaft and monitor electrical connectors, then raise the header stands and release the adaptor plate pivot locking pin, as described in Section 5.1.6.

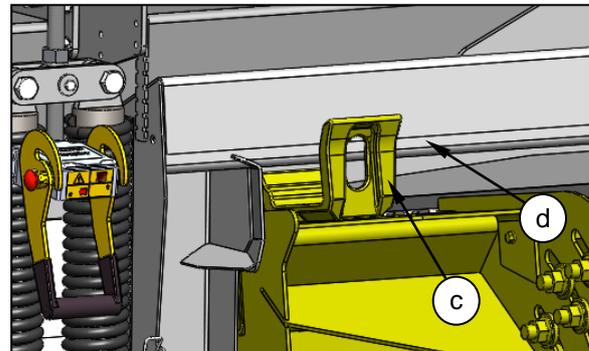
 **Refit all guards**

5.1.3 New Holland CR, CX

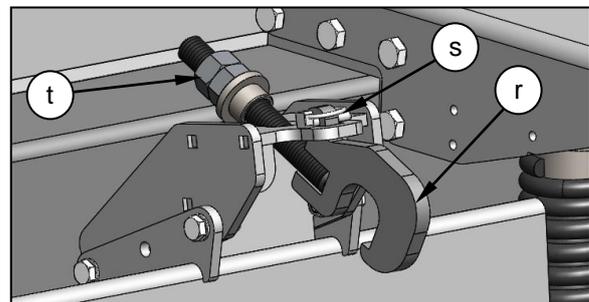
Ensure the handle (a) is positioned so that the hooks (b) can engage in the adaptor plate.



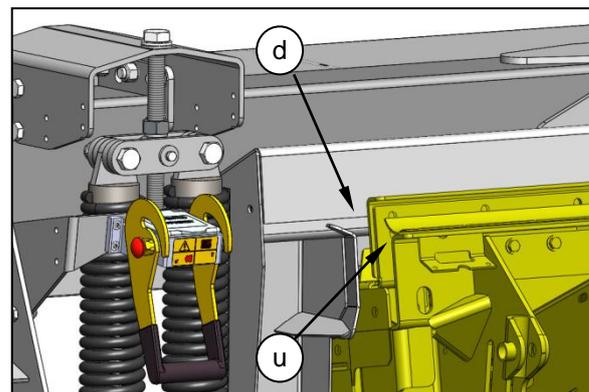
If the feeder house saddle (c) has a slot in the middle of it then the adaptor plate hook (r) will need to be fitted. If the feeder house saddle (u) does not have a slot then the bottom beam lock (v) should be fitted.



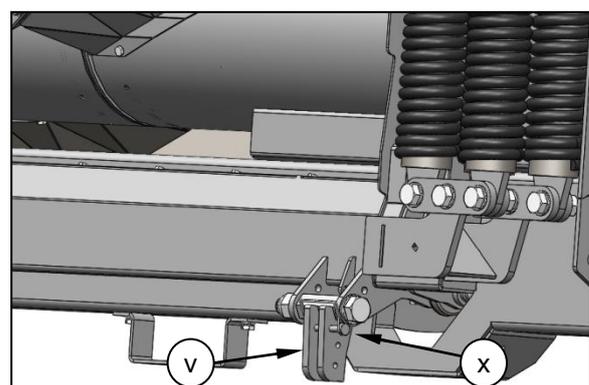
Check that the adaptor plate hook (r) is in the raised position and secured in place with the linchpin (s) or the bottom beam lock (v) is in the lowered position and the D pin (x) is removed.



Drive the combine slowly forward, ensuring the feeder house is centred and parallel with the adaptor plate opening, until the feeder house saddle (c) is directly under the adaptor plate top beam (d).



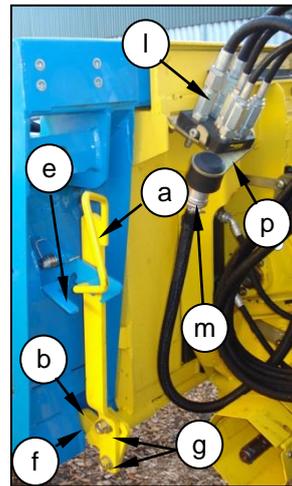
Raise the feeder house to lift the header, ensuring that the feeder saddle is properly engaged in the adaptor plate, then fully raise the header.



 **Stop the machine and implement the safe stop procedure**

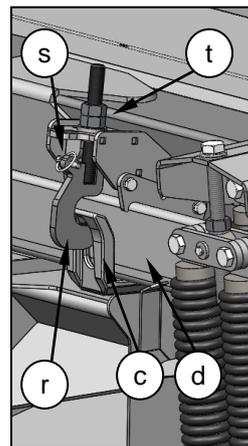
 **Engage the combine's feeder house cylinder lock**

Push the handle (a) towards the header to engage the hooks (b) on both sides of the feeder house. Ensure a slot in the locking plate (e) engages in the handle to lock the handle in place.



If the hooks (b) do not fully engage the pins (f) on the adaptor plate when the handle (a) and the locking plate (e) are engaged, loosen the bolts (g) and adjust the hooks as required, so that some resistance is felt when the locking plate (e) is engaged with the handle (a). Retighten bolts.

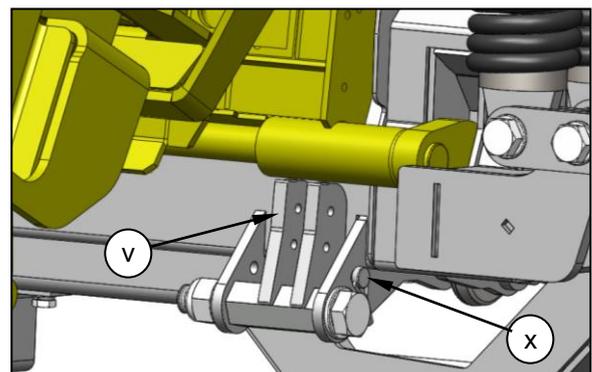
When fitting the adaptor plate hook (r), remove the linchpin (s) and insert the hook into the hole in the feeder house saddle (c). Tighten the nuts (t) to pull the adaptor plate top beam (d) down onto the feeder house saddle (c). Lock the two nuts (t) together and refit the linchpin (s).



When fitting the bottom beam lock (v) it may be necessary to laterally tilt the combine feeder house to the left so the left hand end of the Stripper Header is touching the ground.

⚠ Stop the machine and implement the safe stop procedure

Remove the D pin (x) and flip the bottom beam lock (v) up so that it sits underneath the bottom of the feeder house, resting against the adaptor plate. Secure in position with the D pin (x). Fully raise the header and centralize the lateral tilt.



Recheck the hooks (b) are fully engaged on the pins (f). If they are not, adjust the handle (a) as described above.

⚠ Stop the machine and implement the safe stop procedure

⚠ Engage the combine's feeder house cylinder lock

To connect the combine hydraulic quick coupler (l) to the header multicoupler (h), open the cover (j), then depress the red button (k) and raise the handle (n) up to the “fully open” position.

Remove the combine coupler (l) from its storage position (p) and clean the mating surfaces.

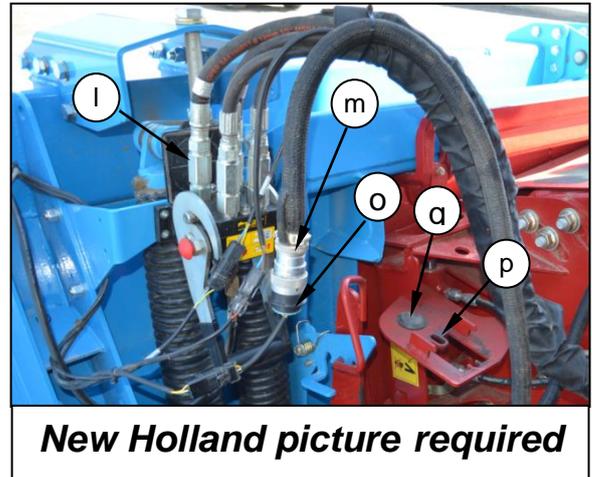
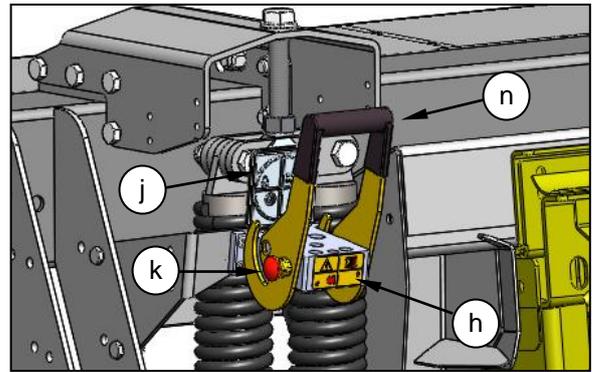
Position the combine coupler (l) onto the header multicoupler (h) and lower the handle (n) to engage the pins.

Push the handle (n) down to “closed position” until the red lock button (k) snaps out.

Remove the electrical connector (m) from its storage position (q) on the feeder house and connect to the plug (o) on the rear of the Stripper Header. To do this align the lugs on the connector with the slots in the on plug, push together and turn the collar on the connector to lock it in place.

Connect the PTO shaft and monitor electrical connectors, then raise the header stands and release the adaptor plate pivot locking pin, as described in Section 5.1.6.

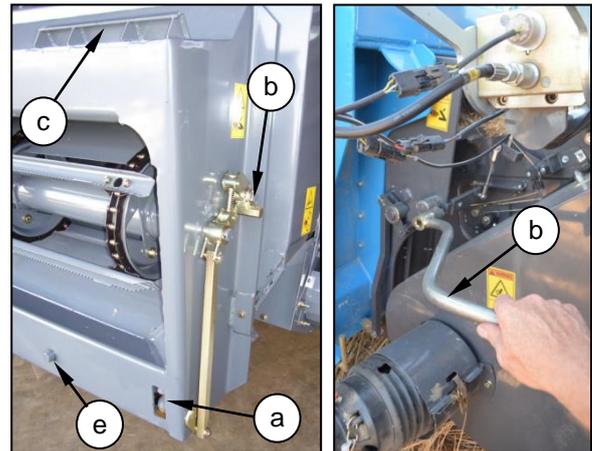
 **Refit all guards**



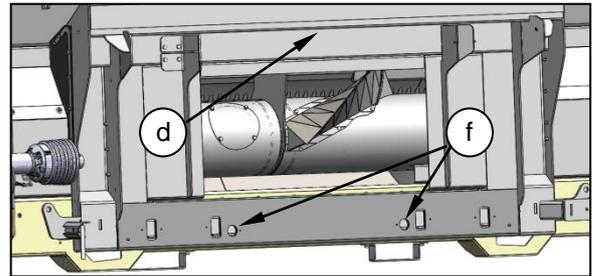
5.1.4 AGCO

Retract the hooks (a) at the base of the feeder house with the lock handle (b).

Drive the combine slowly forward, ensuring the feeder house is centred and parallel with the adaptor plate opening, until the feeder house hooks (c) are directly under the adaptor plate top beam (d) and lower pins (e) are aligned with sockets (f) in the adaptor plate.



Raise the feeder house to lift the header, ensuring that the feeder house hooks (c) are properly engaged in the adaptor plate thus allowing the lower pins (e) to penetrate the sockets (f), then fully raise the header.



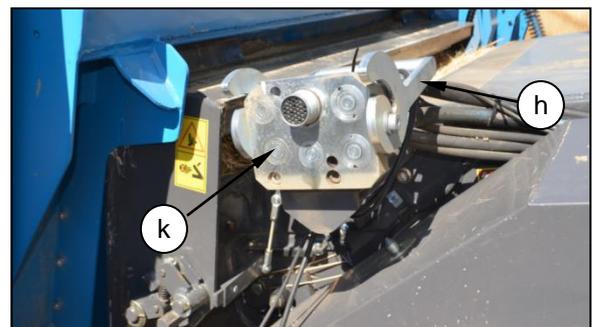
 **Stop the machine and implement the safe stop procedure**

 **Engage the combine's feeder house cylinder lock**

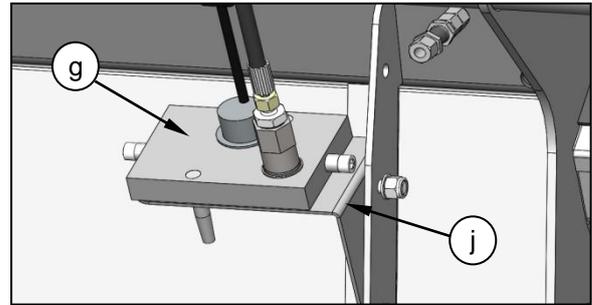
Use the handle (b) to engage the hooks (a) into the adaptor plate, ensure that the handle (b) is rotated to the "over centre position" to securely lock the hooks (a).

Remove the handle (b) and store in the appropriate position on the feeder house.

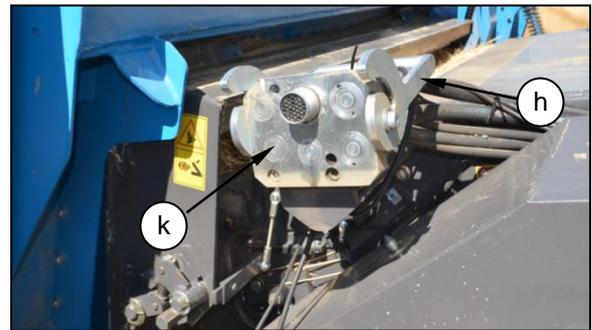
Push the multicoupler handle (h) up to the "fully open position".



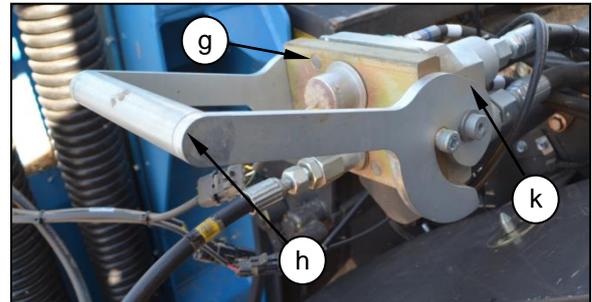
Remove the coupler (g) from its storage bracket (j) on the header and clean both multicoupler faces.



Locate the coupler (g) onto the receptacle multicoupler (k) on the feeder house. Pull the handle (h) down to fully engage the coupler (g).



Connect the PTO shaft and monitor electrical connectors, then raise the header stands and release the adaptor plate pivot locking pin, as described in Section 5.1.6.



Refit all guards

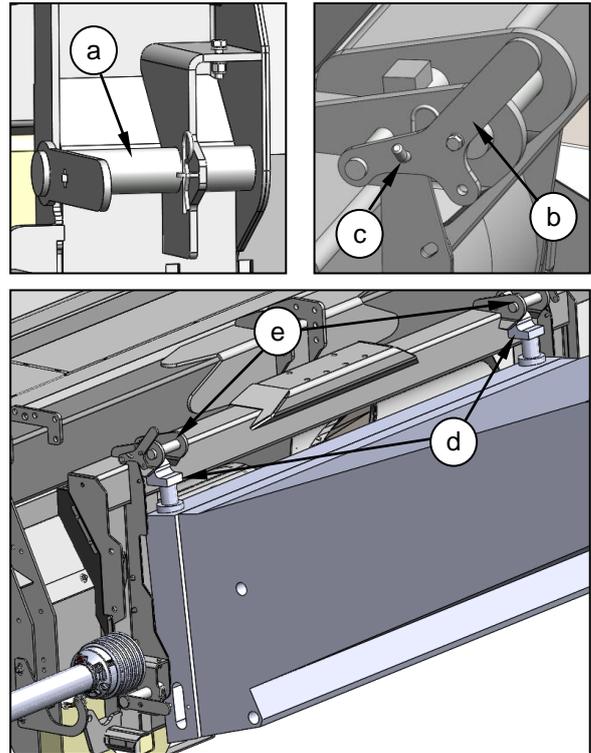
5.1.5 Claas/CAT Lexion

Retract the lower locking pins (a) so that the feeder house opening is unobstructed.

Raise the levers (b) and secure in the “up position” using pins (c).

Drive the combine slowly forward, ensuring the feeder house is centred and parallel with the adaptor plate opening, until the feeder house hooks (d) are directly under the adaptor plate latching pins (e).

Raise the feeder house to lift the header, ensuring that the feeder house hooks (d) are properly engaged in the adaptor plate, then fully raise the header.



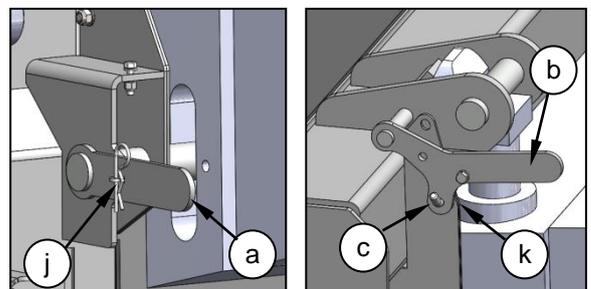
Stop the machine and implement the safe stop procedure



Engage the combine’s feeder house cylinder lock

Insert the lower locking pins (a), on both sides of the feeder house, into the feeder house slots and secure with the R clips (j).

Remove the pin (c) and lower the levers (b), secure the levers (b) in the “lower position” with the pins (c) and secure with the R clips (k).



Unscrew the knob (f) on the combine coupler (g) and remove the coupler from its storage position (h).

Remove the cover (l) from the header hydraulic coupler (m) and clean both mating surfaces.

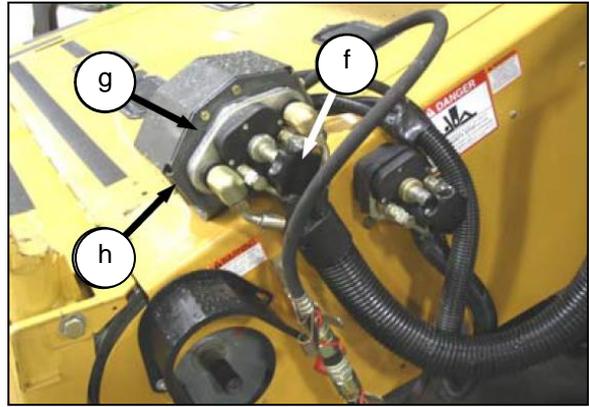
Locate the combine coupler (g) onto the header hydraulic coupler (m) and screw the knob (f) to secure.

Place the cover (l) on the combine storage bracket (h).

Connect the PTO shaft and monitor electrical connectors, then raise the header stands and release the adaptor plate pivot locking pin, as described in Section 5.1.6.



Refit all guards



New picture required

5.1.6 Header attachment: all combines

The following points are typical for all models of combine.

Once the Stripper Header has been securely attached to the combine fully raise the header.

 **Stop the machine and implement the safe stop procedure**

 **Engage the combine's feeder house cylinder lock**

When fitting the PTO shaft to the combine, remove the shaft (e) from its storage bracket (g), then either (depending on PTO specification) depress the locking pin (h) or slide the collar (i) towards the left hand end of Stripper Header and slide the PTO shaft onto the combine output shaft until the pin or collar have locked.

Check that the locking pin or collar has engaged properly on the shaft.

Ensure that the PTO guard retaining chain (j) is either attached to the storage bracket (g) or another fixed part of the Stripper Header or combine.

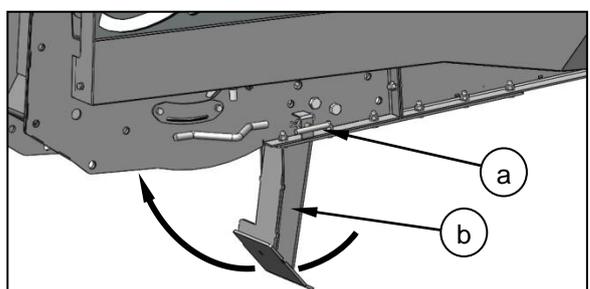
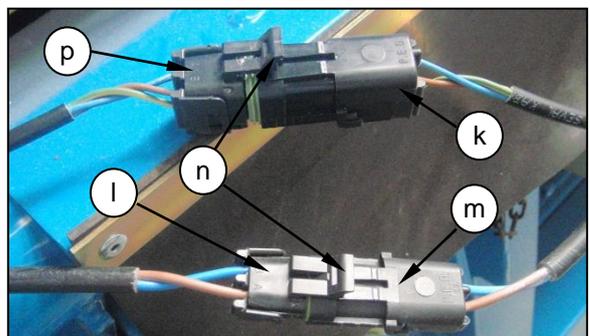
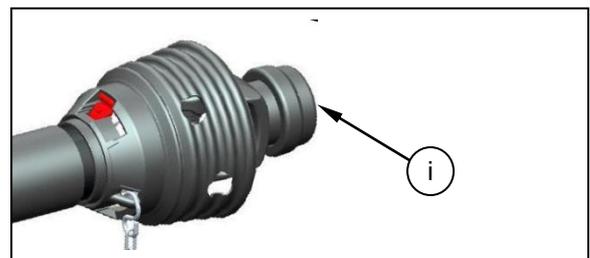
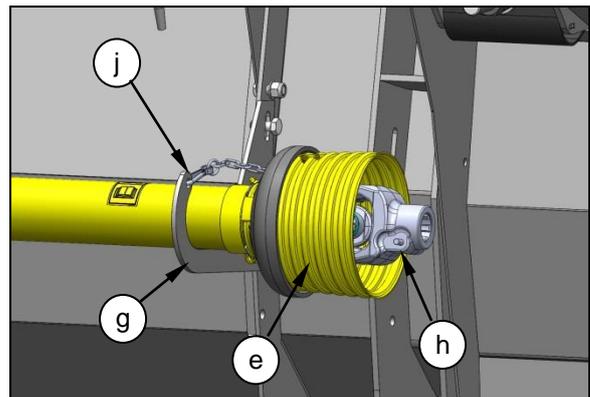
 **Refit all guards**

The plugs that connect the monitor display unit to the loom on the Stripper Header need to be connected. Connect the four pin plug (p) and socket (k) together.

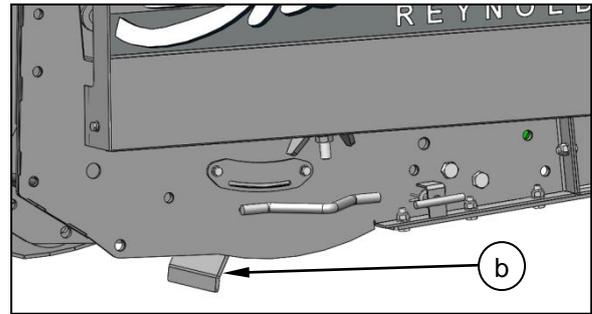
XCV Stripper Headers have an additional two pin plug (l) and socket (m) which needs to be connected, to supply power to the variable speed linear actuator.

Ensure that the tab (n) is engaged to prevent the connectors from coming apart.

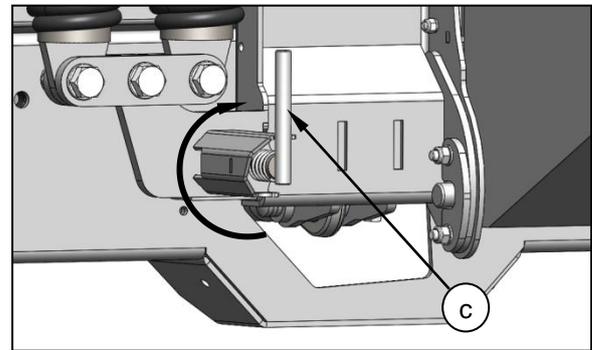
Raise the header stands, located on the front corners on the underside of the mainframe. Pull out pin (a) and slowly pivot the header stand (b) up underneath the mainframe. Release the pin (a) and ensure the stand (b) is held in the "up" position.



Ensure the header stands are raised on both ends of the machine.



Rotate the adaptor plate locking pin (c) clockwise until the handle is vertical, pointing upwards and located into the indent. This will allow the Stripper Header to laterally pivot independently of the combine.



Remove the feeder house cylinder lock.

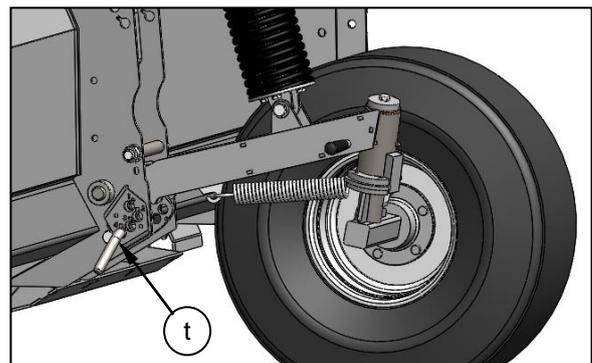
5.2 HEADER DETACHMENT

5.2.1 Header detachment all combines

The following points are typical for all models of combine.

Before detaching the Stripper Header choose a level area with firm ground to park the header.

The gauge wheels will need to be raised to ensure the machine sits properly on the ground. To do this lower the machine to the ground so that the lower pins (t) can be removed.



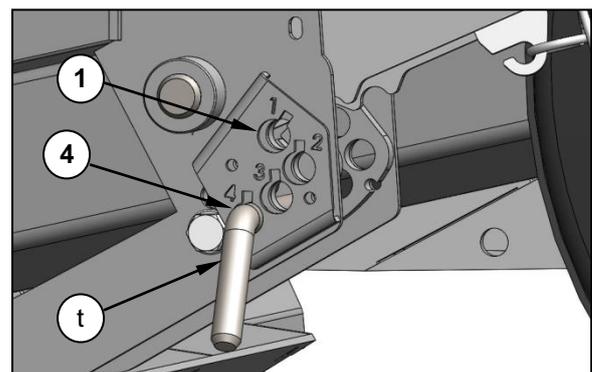
⚠ Stop the machine and implement the safe stop procedure

Remove both lower pins (t) and place in the hole marked 4.

Fully raise the header.

⚠ Stop the machine and implement the safe stop procedure

⚠ Engage the combine's feeder house cylinder lock



Remove both upper pins (u) and place in the storage position (v), then lower the machine to the ground.

 **Stop the machine and implement the safe stop procedure**

Lift the handle (w) to raise the gauge wheel assembly and place lower pin (t) in the hole, marked 1. This should hold the gauge wheel arm (x) up in the “transport” position. Check to ensure the pins (t) are located so that the roll pin passes through the retaining slot.

Fully lower the crop deflector, or lower onto the safety stop. This will relieve the pressure on the hydraulic coupling.

To engage the crop deflector safety stop, lower the header to the ground, then fully raise the crop deflector.

 **Stop the machine and implement the safe stop procedure**

Lift the safety stop (p) from its rest (q) and slide it through the slot in the side plate (r). The stop has a notch which should then rest on the slot in the side plate. Lower the crop deflector roller (s) onto the safety stop.

Fully raise the header.

 **Stop the machine and implement the safe stop procedure**

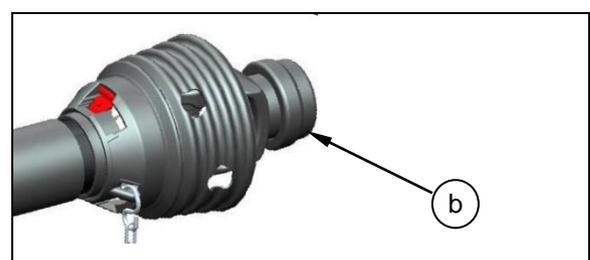
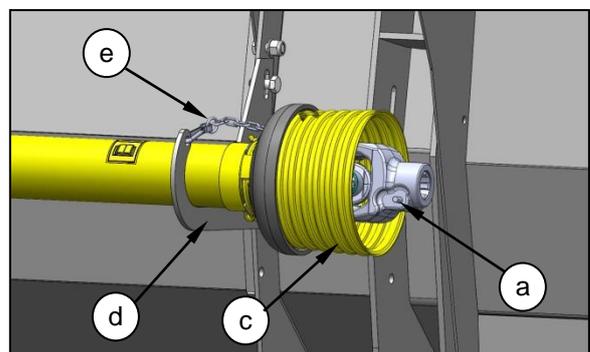
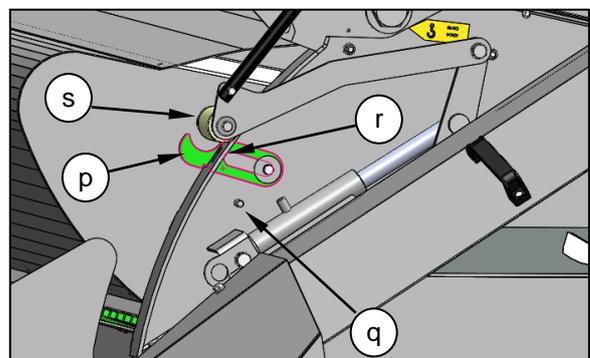
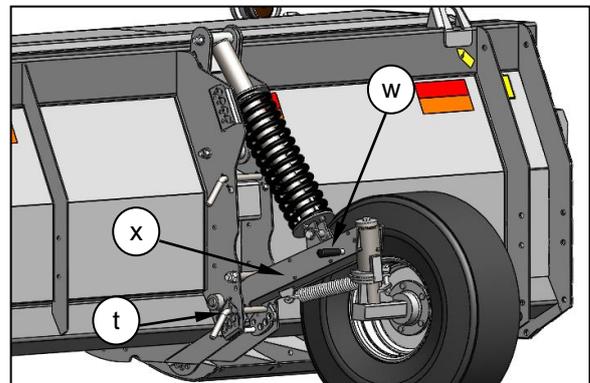
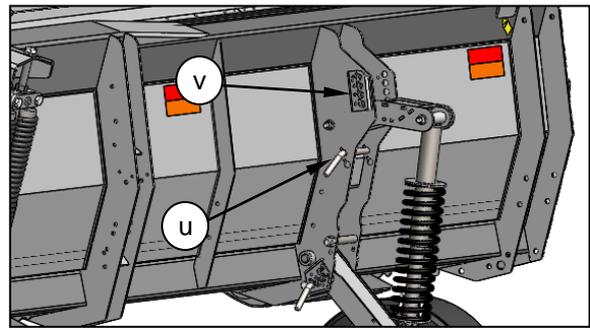
 **Engage the combine’s feeder house cylinder lock**

Detach the PTO shaft from the combine.

Depending on PTO specification, depress the locking pin (a) or slide the collar (b) towards the left hand end of the Stripper Header and slide the PTO shaft (c) off the combine output shaft.

Place the PTO shaft in the storage bracket (d).

Ensure that the PTO guard retaining chain (e) is not attached to the combine.





Refit all guards

Disconnect the plugs that connect the monitor display unit and the loom on the Stripper Header.

Raise the tab (f) and pull the plug (g) and socket (h) apart. Repeat the process for the plug (i) and socket (j) if fitted.

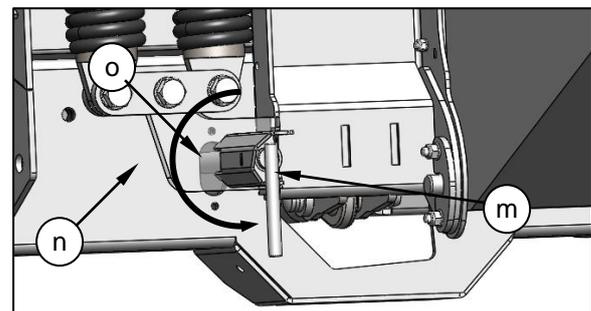
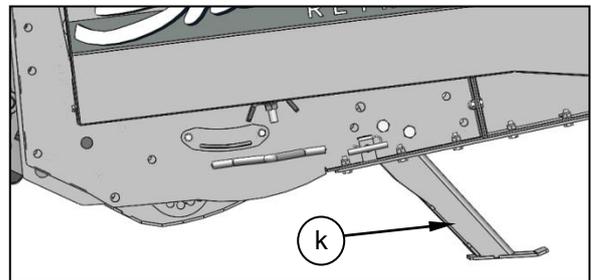
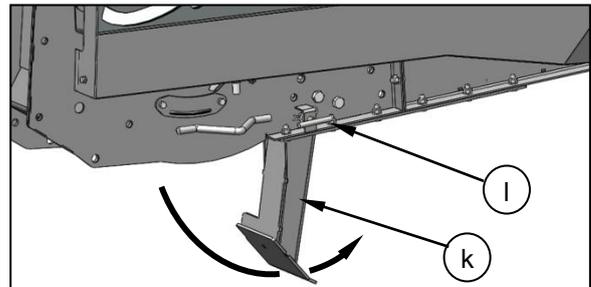
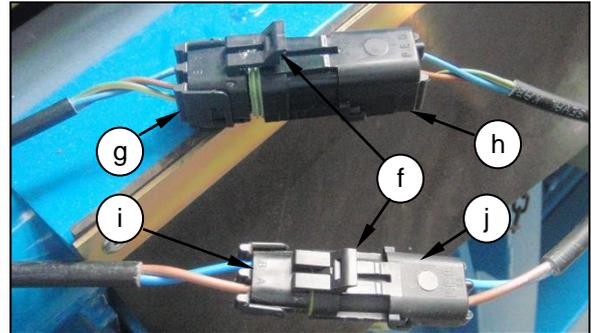
Secure the disconnected cables to prevent damage occurring.

Lower the header stands, located on the front corners on the underside of the mainframe. Support the rear of the header stand (k), pull out pin (l) and slowly lower the header stand (k) from underneath the mainframe. Release the pin (l) and push the stand (k) forward to its “down” position.

Ensure that the header stand (k) is secured in the “down” position by the pin (l).

Lower the header stand on the other end of the machine.

Lock the adaptor plate by rotating the adaptor plate locking pin (m) anticlockwise until the handle is pointing downwards and located into the indent. Ensure the pin (m) has located into the hole (o) in the mainframe bottom beam (n). If it is not located rock the Stripper Header laterally until the pin (m) has located.



5.2.2 John Deere 60, 70 & S series

Raise the gauge wheels, lower the header stands, lock the adaptor plate and disconnect the PTO shaft and monitor electrical connectors and ensure the crop deflector is lowered as described in Section 5.2.1.

Fully raise the header.

 **Stop the machine and implement the safe stop procedure**

 **Engage the combine's feeder house cylinder lock**

 **Refit all guards**

Remove the plastic cover (n) from the storage bracket (j).

Remove the linchpin (l) and slide the latch (k) across or the pull pin (m) and fully raise the handle (a) up and towards the feeder house.

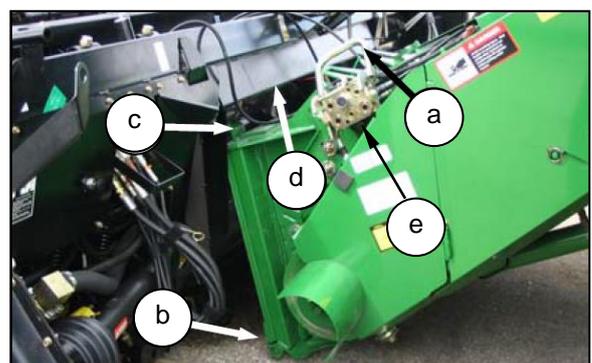
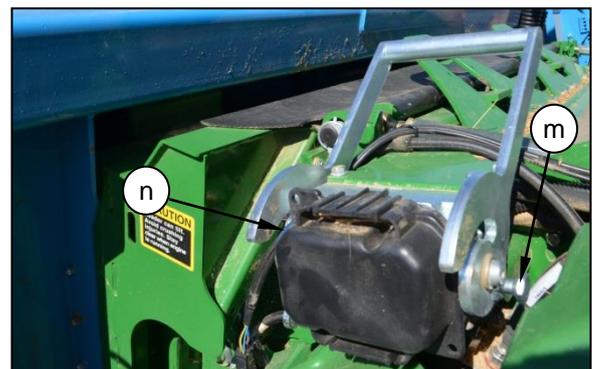
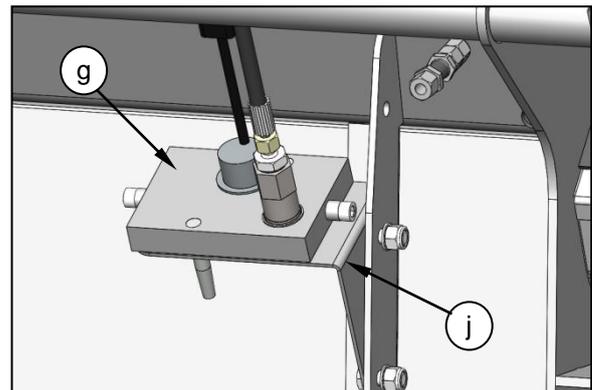
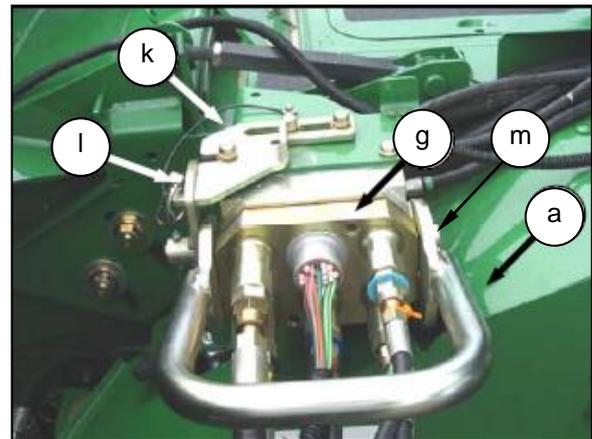
Remove the coupler (g) from the combine multicoupler (e) and locate in the header storage bracket (j). Fit the plastic cover (n) onto the combine multicoupler.

Ensure the pins (b) are fully retracted from the adaptor plate.

Remove the feeder house cylinder lock.

Lower the feeder house until the saddle (c) disengages and clears the adaptor plate top beam (d).

Slowly back the combine away from the header.



Shelbourne picture required

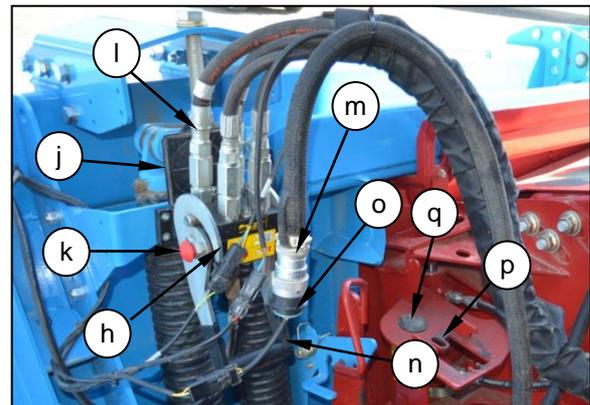
5.2.3 Case IH 10, 20, 30, 40 & 88 series

Raise the gauge wheels, lower the header stands, lock the adaptor plate and disconnect the PTO shaft and monitor electrical connectors and ensure the crop deflector is lowered as described in Section 5.2.1.

Fully raise the header.

-  **Stop the machine and implement the safe stop procedure**
-  **Engage the combine's feeder house cylinder lock**
-  **Refit all guards**

Disconnect the combine electrical connector (m) from the header plug (o), and place it in the storage cup (q) on the combine.

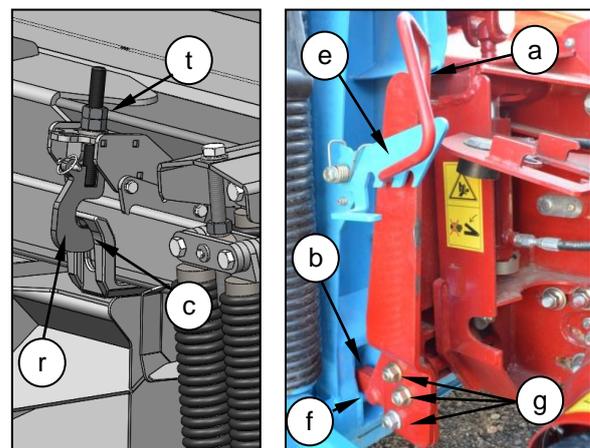


Depress the red button (k) on the header multicoupler (h) and raise the handle (n) to release the combine quick coupler (l).

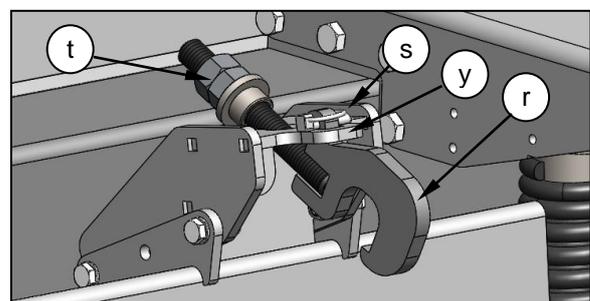
Place the combine quick coupler (l) in the storage bracket (p) on the combine.

Close the cover (j) on the header multicoupler and lower the handle (n) to the "closed position".

Undo the two nuts (t) to release the adaptor plate hook (r) from the feeder house saddle (c).



Remove the linchpin (s) from the adaptor plate hook (r), lift the hook up and locate the lug into the slot in the mounting bracket (y). Secure the hook (r) into position with the linchpin (s). Lock the two nuts (t) together.

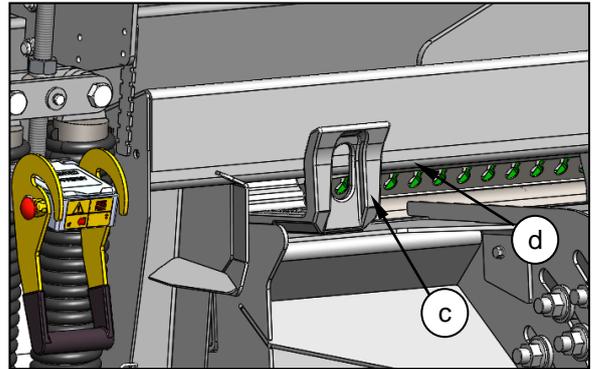


Lift the locking plate (e), pull and the lower handle (a) to disengage the hooks (b) from the pins (f).

Remove the feeder house cylinder lock.

Lower the feeder house until it is disengaged with the adaptor plate top beam (d).

Slowly back the combine away from the header.



5.2.4 New Holland CR, CX

Raise the gauge wheels, lower the header stands, lock the adaptor plate and disconnect the PTO shaft and monitor electrical connectors and ensure the crop deflector is lowered as described in Section 5.2.1.

Fully raise the header.

-  **Stop the machine and implement the safe stop procedure**
-  **Engage the combine's feeder house cylinder lock**
-  **Refit all guards**

Disconnect the combine electrical connector (m) from the header plug (o), and place in the storage cup (q) on the combine.

Depress the red button (k) on the header multicoupler (h) and raise the handle (n) to release the combine quick coupler (l).

Place the combine quick coupler (l) in the storage bracket (p) on the combine.

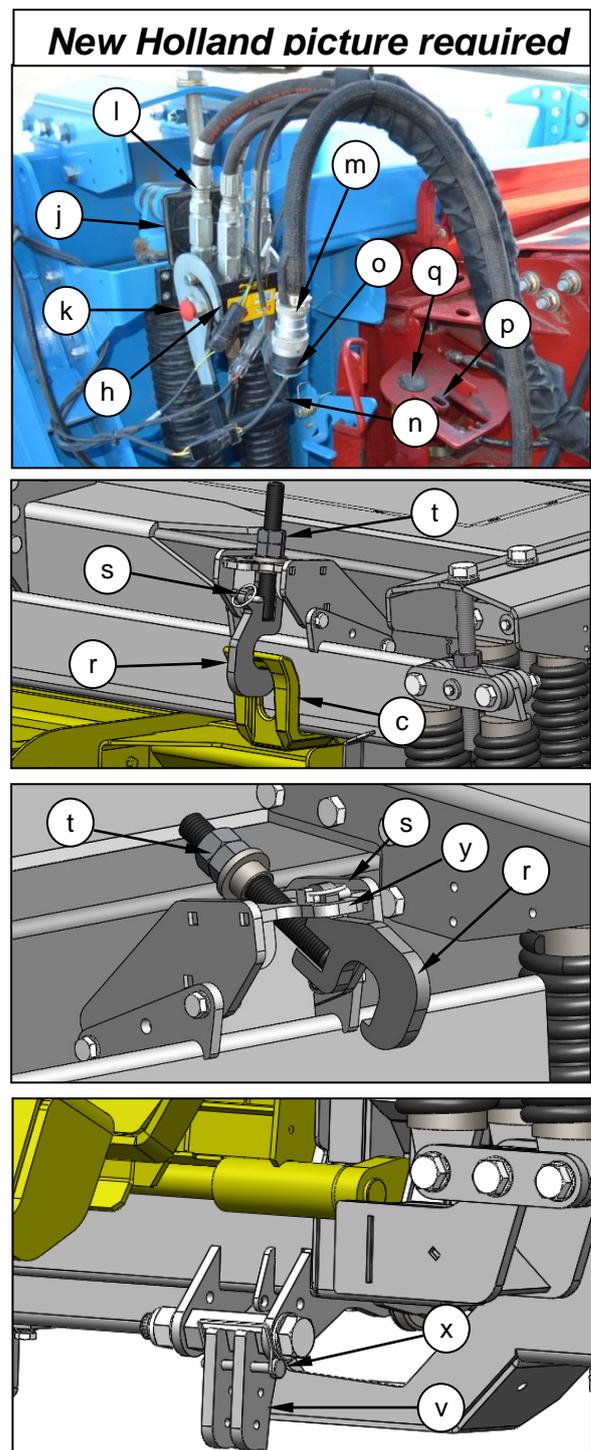
Close the cover (j) on the header multicoupler and lower the handle (n) to the "closed position".

If the adaptor plate hook (r) is fitted under the two nuts (t) to release the adaptor plate hook (r) from the feeder house saddle (c).

Remove the linchpin (s) from the adaptor plate hook (r), lift the hook up and locate the lug into the slot in the mounting bracket (y). Secure the hook (r) into position with the linchpin (s). Lock the two nuts (t) together.

If the bottom beam lock (v) is fitted remove the D pin (x) and flip the bottom beam lock (v) down.

Refit the D pin (x) into the bottom beam lock (v).

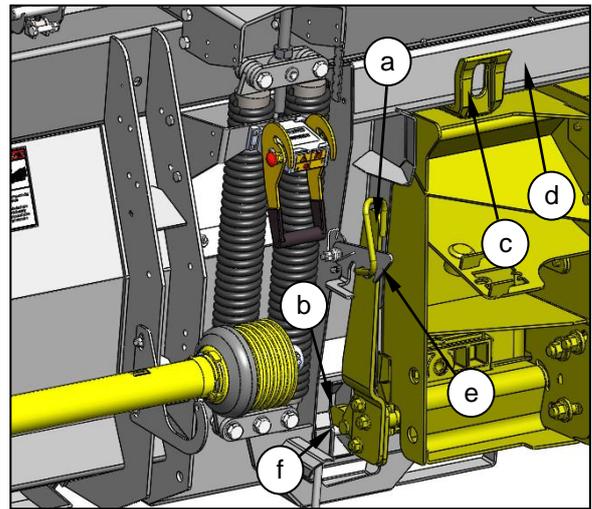


Lift the locking plate (e), pull and lower the handle (a) to disengage the pins (f) and the hooks (b).

Remove the feeder house cylinder lock.

Lower the feeder house until it is disengaged from the adaptor plate top beam (d).

Slowly back the combine away from the header.



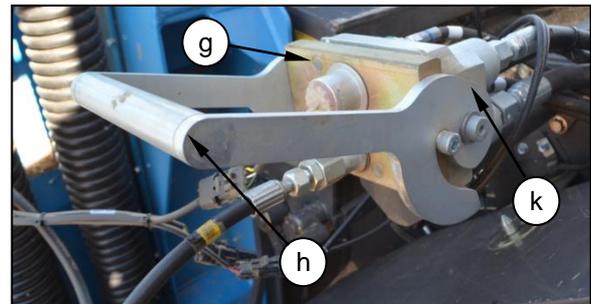
5.2.5 AGCO

Raise the gauge wheels, lower the header stands, lock the adaptor plate and disconnect the PTO shaft and monitor electrical connectors and ensure the crop deflector is lowered as described in Section 5.2.1.

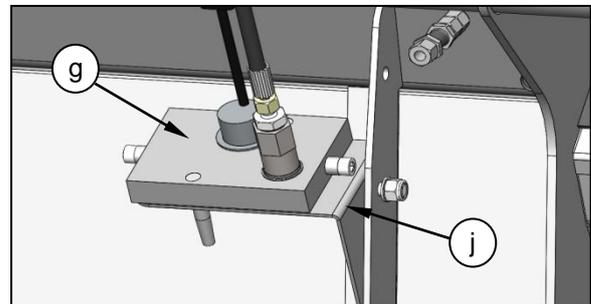
Fully raise the header.

-  **Stop the machine and implement the safe stop procedure**
-  **Engage the combine's feeder house cylinder lock**
-  **Refit all guards**

Push the multicoupler handle (h) to the "fully open position", remove the coupler (g) and place it in the storage bracket (j) on the header.



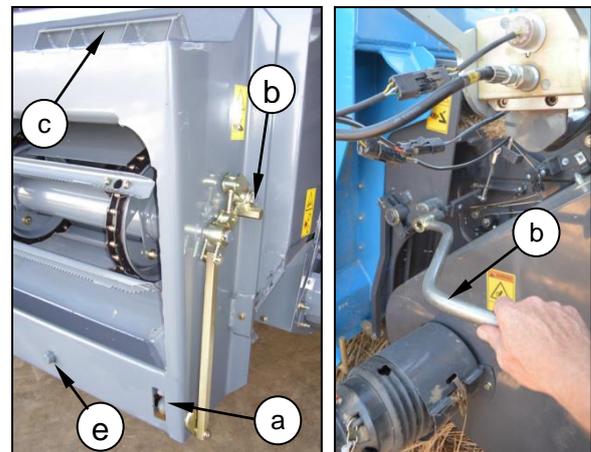
Fit the handle (b) and rotate to retract the hooks (a) from the adaptor plate, remove the handle (b) and store in the appropriate position on the feeder house.



Remove the feeder house cylinder lock.

Lower the feeder house until it is disengaged from the adaptor plate top beam.

Slowly back the combine away from the header.



5.2.6 Claas/CAT Lexion

Raise the gauge wheels, lower the header stands, lock the adaptor plate and disconnect the PTO shaft and monitor electrical connectors and ensure the crop deflector is lowered as described in Section 5.2.1.

Fully raise the header.

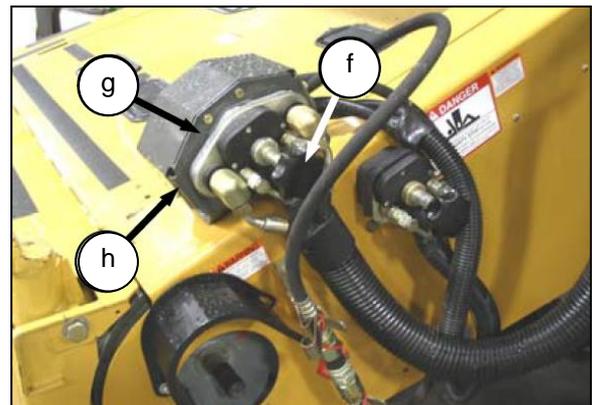
-  **Stop the machine and implement the safe stop procedure**
-  **Engage the combine's feeder house cylinder lock**
-  **Refit all guards**

Remove the cover (l) from the combine storage bracket (h).



Unscrew the knob (f) on the combine coupler (g) and remove the coupler from the header.

Locate the combine coupler (g) on the combine storage position (h) and screw the knob (f) to secure.



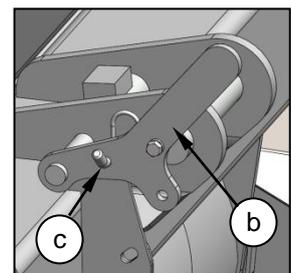
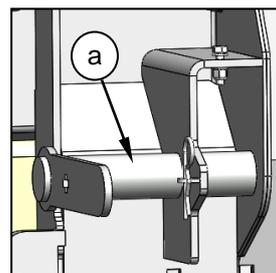
Fit the cover (l) on the header hydraulic coupler (m).

Retract the lower locking pins (a) and raise the lever (b) and secure in the "up position" using the pin (c).

Remove the feeder house cylinder lock.

Lower the feeder house until it is disengaged from the adaptor plate.

Slowly back the combine away from the header.



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SECTION 6

STRIPPER HEADER PREPARATION & ADJUSTMENTS

Prior to delivery the Stripper Header will have been set up and pre-delivery inspected (PDI) by your Shelbourne dealer, however there are some set up tasks and further adjustments that may need to be carried out prior to use.



Refer to Sections 2.7 and 2.11 for accident prevention information

6.1 REMOVING CROP DEFLECTOR SHIPPING BRACKETS

The shipping brackets that secure the crop deflector need to be removed from each end of the machine before use. With the Stripper Header attached to the combine, lower the Stripper Header to the floor.



Stop the machine and implement the safe stop procedure

XCV42 and XCS42 models have an additional centre shipping strap (f) that needs to be removed before the end shipping brackets (c & d) are removed.

Remove the fasteners (g, h & n) and remove the strap (f).

If the crop deflector support (j) is not fitted remove the outer roller (k) and bolt the support (j) to the crop deflector (m) with the fasteners (h & p). Refit the outer roller (k).

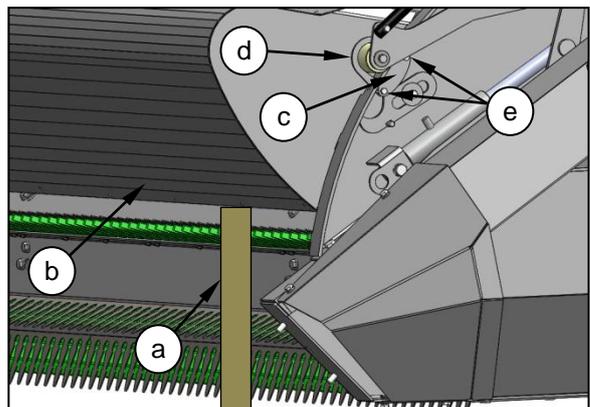
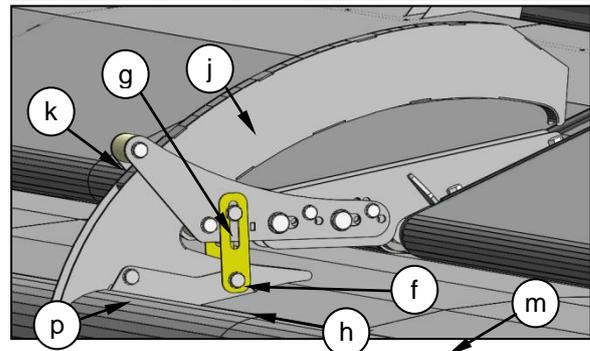
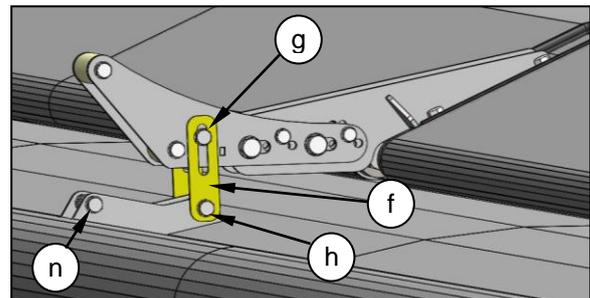
Place suitable supports (a) underneath each end of the crop deflector (b) to take the weight off the shipping brackets (c & d).

Undo the M6 fasteners (e) that secure the plate (c) to the horse shoe plate (d).

Remove the plate (c) then lift out the horse shoe plate (d).

Repeat the process with the shipping bracket at the other end of the machine.

Charge the crop deflector hydraulic system and raise the crop deflector by operating the combine's reel raise function. Remove support (a), then fully lower the crop deflector by operating the combine's reel lower function.



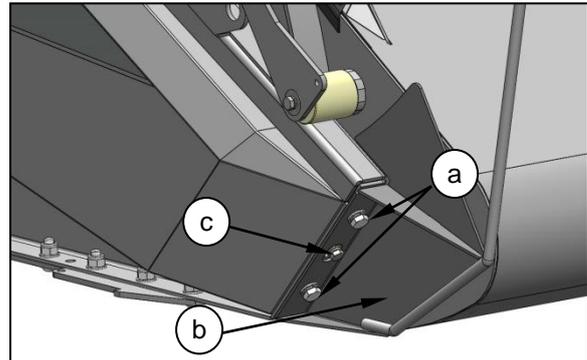
6.2 FITTING OF CROP MARKERS

Crop markers need to be fitted to the front left hand and right hand corners.

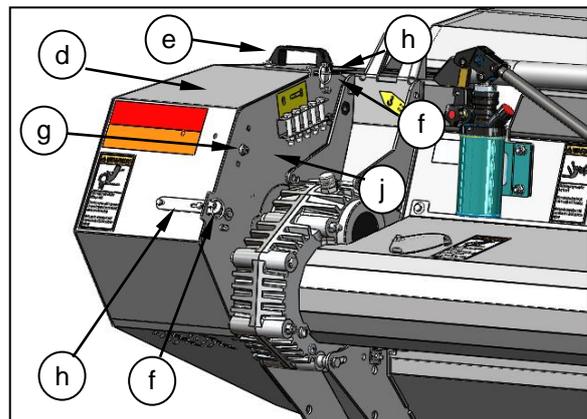
Lower the Stripper Header to the ground and fully lower the crop deflector.

 **Stop the machine and implement the safe stop procedure**

The fasteners (a) that secure the crop markers (b) should already be fitted, remove these, position the crop marker and secure in place by refitting the fasteners. There is no need to remove the right hand guard fastener (c).



In order to fit the left hand crop marker the left hand drive guard (d) must be removed. To do this, support the guard by the two handles (e) and remove the two linchpins (f), if fitted turn the guard latch (g) also. Pull the rear of the guard away to disengage the latch plates (h) from the back plate (j), then slide the guard (d) out from the front corner guard (k) and place the guard on the ground.

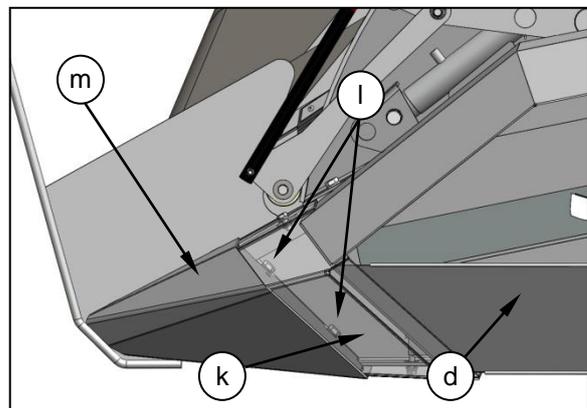


To fit the crop marker first remove the fasteners (l). The nuts used to retain the fasteners can be discarded.

Position the crop marker (m) as shown and refit the fasteners. There are captive nuts inside the crop marker to retain the fasteners.

 **Refit the left hand drive guard**

Locate the front edge of the guard (d) inside the front corner guard (k), then engage the latch plates (h) into the back plate (j). Ensure the guard (d) is secured by the guard latch (g) (if fitted) and secure with linchpins (f).



6.3 REMOVAL OF FORKLIFT BRACKETS

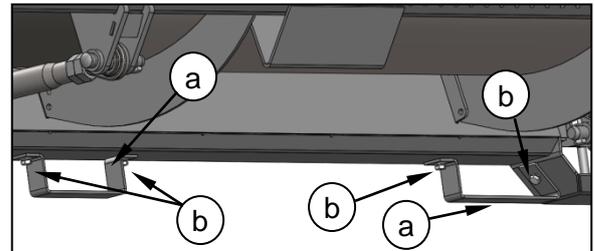
Before operation the forklift brackets located underneath the centre of the Stripper Header need to be removed.

With the Stripper Header connected to the combine, fully raise the Stripper Header and engage the combine's feeder house cylinder lock.

 **Stop the machine and implement the safe stop procedure**

 **Engage the combine's feeder house cylinder lock**

The rear straps (a) are removed by removing the fasteners (b). Refit the fasteners after the strap is removed.



Keep the rear straps in a safe place so they can be refitted if the Stripper Header ever needs to be moved with a forklift.

6.4 CROP DEFLECTOR HEIGHT INDICATOR

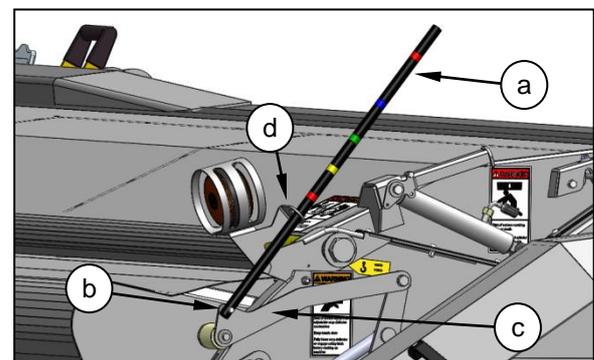
The crop deflector height indicator rod will need to be fitted. This can be fitted to either side of the Stripper Header.

 **Raise the crop deflector and engage the safety stop**

 **Stop the machine and implement the safe stop procedure**

Remove the cable tie securing the indicator rod (a) for transport.

Remove the bolt (b) securing the indicator rod to the link arm (c). Thread the end of the indicator rod through the light mounting bracket (d). Bolt the indicator rod back onto the link arm.



6.5 ADJUSTING THE SKIDS

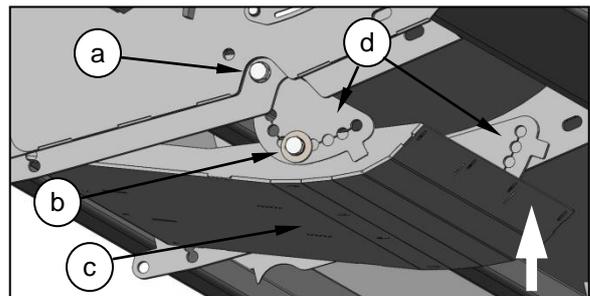
The Stripper Header is supplied with four adjustable skids, two outer skids and two inner. The skids come into contact with the ground when working at low levels. The skid height can be adjusted to vary the clearance between the stripping rotor and the ground, to prevent damage to the stripping rotor.

With the Stripper Header connected to the combine, fully raise the Stripper Header and engage the combine's feeder house cylinder lock.

 **Stop the machine and implement the safe stop procedure**

 **Engage the combine's feeder house cylinder lock**

Slacken bolts (a & b) on each side of the skid (c). Support the rear of the skid and remove the bolt (b) on one side of the skid. Ensuring the rear of the skid is fully supported remove the bolt (b) on the other side of the skid.



Lower the skid to the desired position and then refit bolt (b) aligning it with the required hole in the skid adjuster plate (d) and the skid. Repeat the process on the other side of the skid, ensuring that the same hole is used in both skid adjuster plates. Fully tighten all bolts (a & b) on both sides of the skid.

Repeat the process on the other skids, ensuring that both outer skids are adjusted to the same height. Inner skids should be set two positions higher than outer skids.

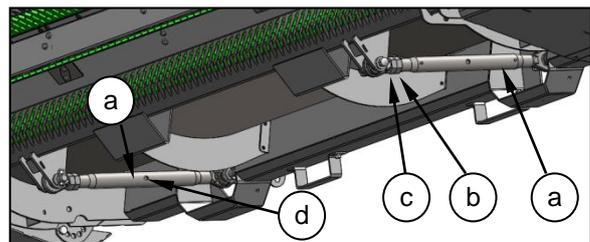
6.6 ADJUSTING THE ADAPTOR PLATE TURN BUCKLES

With the Stripper Header connected to the combine, fully raise the Stripper Header and engage the combine's feeder house cylinder lock.

 **Stop the machine and implement the safe stop procedure**

 **Engage the combine's feeder house cylinder lock**

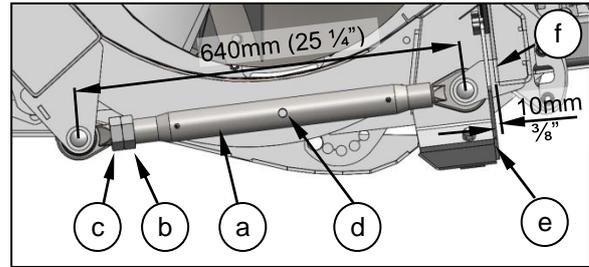
The two adjustable adaptor plate turn buckles (a) underneath the machine need to be adjusted so that the Stripper Header can freely laterally tilt. The turn buckles are pre-set to a length of 640mm (25 1/4") (centre of pin to centre of pin).



Slacken the two locking nuts (b & c), then wind the turn buckles (a) by placing a bar in the hole (d). The turn buckles should be adjusted until there is a gap of 10mm (3/8") in the centre of the header between the main frame bottom beam (e) and the adaptor plate beam (f). Both turn buckles (a) should be adjusted to the same length.

Once the gap has been set wind the inner locking nut (b) until it touches the body of the

turn buckle. Then tighten the inner locking nut (b) while preventing the turn buckle from turning by placing a bar in the hole (d). Wind the outer locking nut (c) against the inner locking nut (b) and tighten.



Release the adaptor plate locking pin, as described in Section 5.1.6. Check that the header can tilt freely. As the header tilts the gap between the main frame bottom beam (e) and the adaptor plate beam (f) will narrow. This is why it is important that there is a 10mm ($\frac{3}{8}$ ") gap.

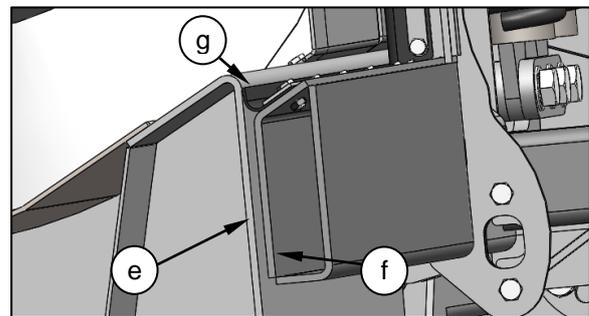
Remove the feeder house cylinder lock and lower the header.

⚠ Stop the machine and implement the safe stop procedure

Raise the hood and use the hood ram stop, see Section 6.10.

⚠ Use the hood ram stop

Check that the seal (g) is in the "up" position and seals the gap between the main frame bottom beam (e) and the adaptor plate beam (f). Check to ensure that the seal (g) is not in the "down" position between the main frame bottom beam (e) and the adaptor plate beam (f). If the gap is too large for the seal (g) then reduce the length of the turn buckles (a).

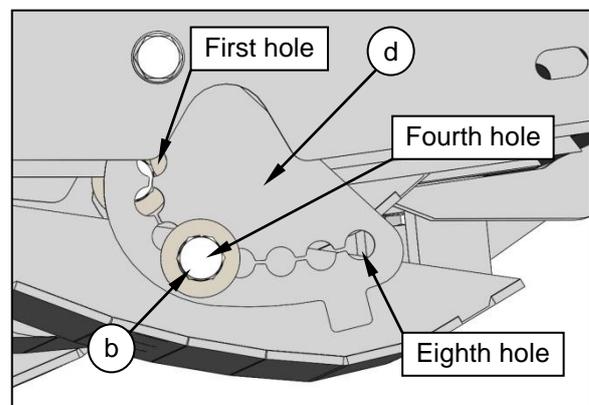


Lock the adaptor plate as described in Section 5.2.1, then lower and secure the hood.

6.7 ADJUSTING THE HEADER PITCH

The pitch of the Stripper Header may need to be adjusted to ensure the correct rotor clearance. This is done by altering the angle of the combine feeder house faceplate; consult the CMOM for instructions on this.

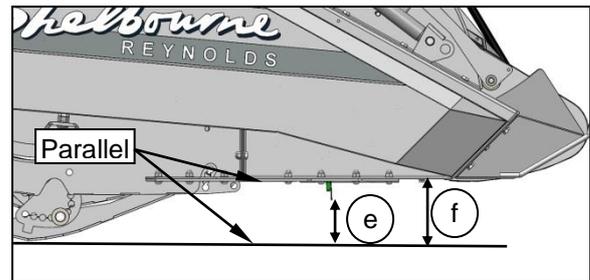
Park the Stripper Header and combine on level concrete with the gauge wheels in the "raised" position; see Section 5.2.1. Adjust the outer skids as described in Section 6.5, so that bolt (b) is in the fourth hole in the skid adjuster plate (d).



Lower the Stripper Header so that the outer skids touch the concrete.

⚠ Stop the machine and implement the safe stop procedure

Check the pitch adjustment. The side plates of the header should be parallel to the ground or tilted back very slightly. This should equate to an approximate clearance (e) of 100mm (4") between the stripping rotor finger and the ground and (f) 150mm (6") between the bottom of the side plate and the ground.



To reduce header loss, it may sometimes be necessary to pitch the header up further.

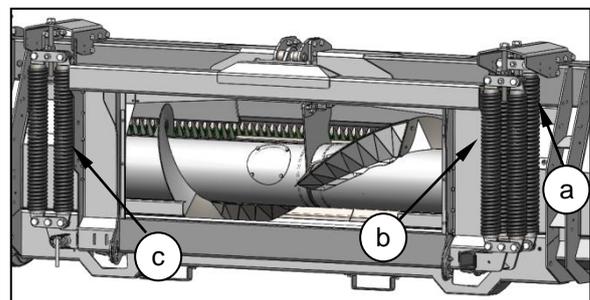
If adjustment is required alter the angle of the combine feeder house faceplate, consult the CMOM for instructions on this.

6.8 ADJUSTING THE ADAPTOR PLATE SPRINGS

The adaptor plate springs need to be adjusted in order to level the header and allow the header to "float" and laterally tilt. To do this, lower the header to the ground.

⚠ Stop the machine and implement the safe stop procedure

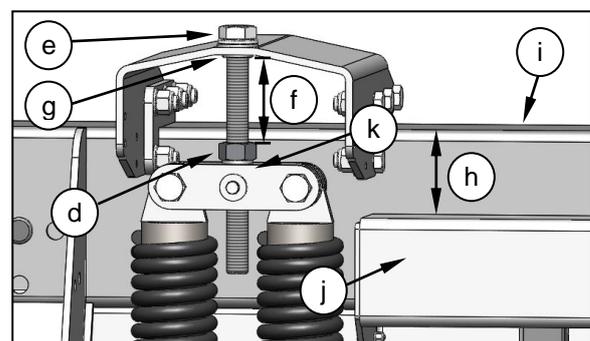
Due to the weight of the drive train the header is heavier on the left hand end. To raise the left hand end of the header the inner right hand pair of springs (a) need to be tensioned, to do this slacken the lock nut (d) and turn the setscrew (e) clockwise. The springs are pre-tensioned to the dimensions in table on opposite page, with the distance (f) being measured between the top hat bush (g) and the lock nut (d). This should level the header relative to the adaptor plate.



To check this fully raise the Stripper Header and engage the combine's feeder house cylinder lock.

⚠ Stop the machine and implement the safe stop procedure

⚠ Engage the combine's feeder house cylinder lock



Measure the distance (h) between the main frame top beam (i) and the adaptor plate top beam (j). This distance should be the same on either side of the adaptor plate.

Depending on combine model and feeder house design, this may not level the header relative to the ground. To do this, adjust the combine according to the CMOM, as the adjustment method is the same as that for a conventional cutterbar.

Alternatively the inner right hand spring (a) can be further tensioned to level the header relative to the ground, if there is insufficient adjustment then the outer right hand springs (b) can be tensioned as well.

Release the adaptor plate locking pin, as described in Section 5.1.6, then manually tilt the header side to side, this can be done by pulling down and pushing up on the end of the machine. Recheck the header is level. Further adjustment may be required to level the header as the tilt mechanism frees up.

Once the adjustment has been finalized tighten lock nut (d) down onto the threaded boss (k).

The left hand springs (c) and the outer right hand spring (b) are adjusted to allow the header to float as the ground contours change. The tension of these can be adjusted to suit operator preferences. The springs are pre-tensioned to different dimensions according to model width, see table below.

MODEL WIDTH	DISTANCE F – BETWEEN TOP HAT BUSH AND LOCK NUT		
	INNER RIGHT HAND SPRING (A)	OUTER RIGHT HAND SPRING (B)	LEFT HAND SPRING (C)
32	50mm (2")	75mm (3")	75mm (3")
36	25mm (1")	105mm (4")	105mm (4")
42	0mm (0")	95mm (3 3/4")	95mm (3 3/4")

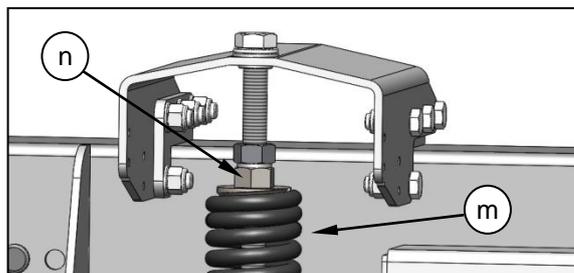
To adjust the tension, lower the header to the ground.

⚠ Stop the machine and implement the safe stop procedure

Slacken the locking nut (d) and turn the setscrew (e) clockwise to increase the tension, which will make the machine stiffer to move. Alternatively turn the setscrew anticlockwise to reduce the spring tension, making the machine tilt more easily.

When reducing the tension on machines with a single spring (m) always hold the threaded adjuster (n) with a wrench to prevent it from unthreading from the spring.

⚠ Hold threaded adjuster with wrench when reducing spring tension



The left hand (c) and the outer right hand (b) springs should have equal tension.

Once the springs have been adjusted tighten the locking nut (d) down onto the threaded adjuster (k or n).

On certain combine models with 42' Stripper Header it may be necessary to tension the outer right hand springs more than the left hand springs in order to level the header relative to the ground.

If the machine wallows around too much, particularly when the header is raised during headland turns it may be necessary to further tension the left hand spring (c) and outer right hand springs (b).

If the machine is too stiff, the skids may be felt contacting the ground, or the gauge wheels may not force the machine to tilt. Reducing the tension on the left hand spring (c) and the outer right hand (b) springs will allow the machine to move more freely.

6.9 ADJUSTING THE GAUGE WHEELS

The two pivoting gauge wheels contact the ground and allow the header to laterally tilt as it travels across the field.

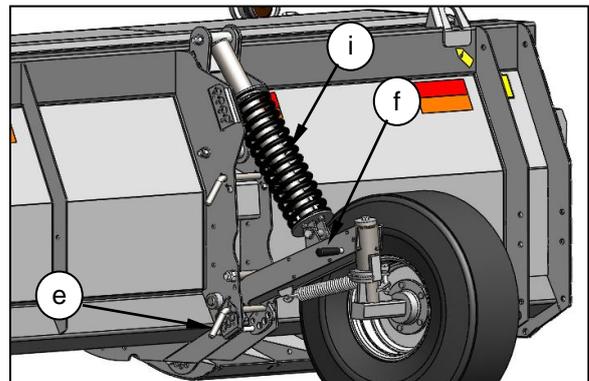
The gauge wheels have multiple positions to enable effective operation at different harvesting heights.

The gauge wheels should be set so that when the machine is fully lowered to the ground, onto the skids there is still some give in the springs. When at harvesting height the spring should be partially compressed.

When setting the gauge wheels first lower the machine to the ground so that the lower pins (e) can be removed.

 **Stop the machine and implement the safe stop procedure**

Lift up handle (f) to raise the gauge wheels assembly and place lower pin (e) in the hole, marked 4.

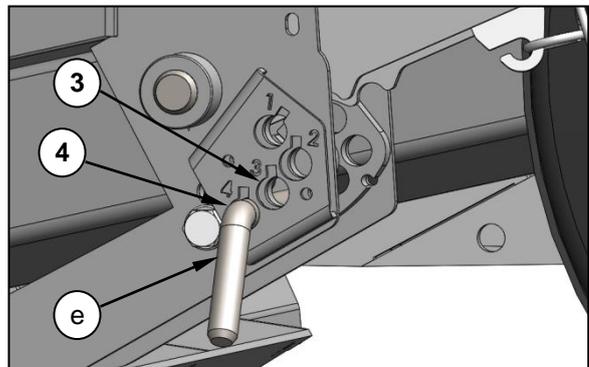


Fully raise the Stripper Header and engage the combine's feeder house cylinder lock.

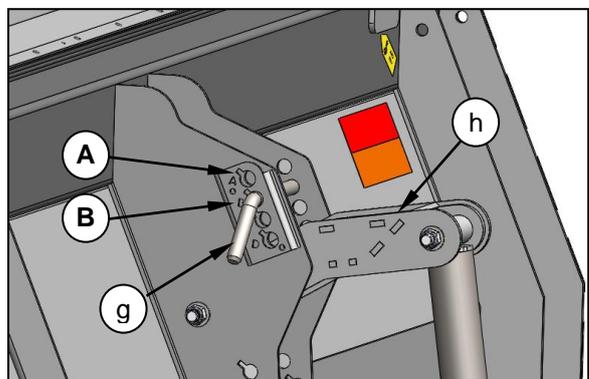
 **Stop the machine and implement the safe stop procedure**

 **Engage the combine's feeder house cylinder lock**

Insert the top pin (g) into one of the upper holes, above the top arm (h). The upper holes are identified as **A**, **B**, **C** & **D**. Insert the pin into hole **B** for initial setting (use hole **A** for pre-2015 machines). Ensure the pin is located so that the roll pin passes through the retaining slot.



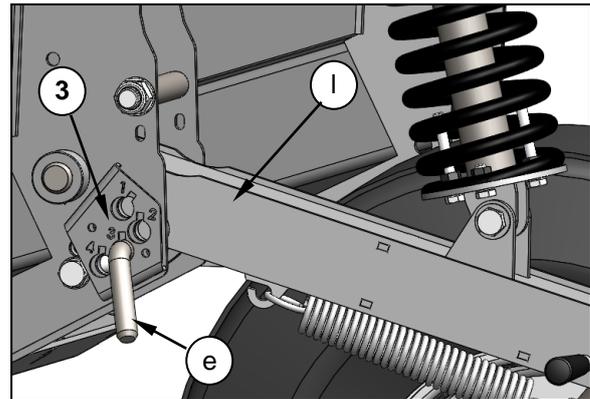
Remove the feeder house cylinder lock and fully lower the header to the ground. It may be necessary to move forward slightly to ensure that the gauge wheels pivot behind the machine.



 **Stop the machine and implement the safe stop procedure**

Measure the length of the spring (i) to check that there is still sufficient give. The spring length should measure between 300mm-350mm (12"-14"). If it is less then repeat the procedure above and move the top pin (g) up one hole position; if it is more then move the top pin (g) down one hole position.

Insert the lower pin (e) into one of the lower holes underneath the gauge wheel arm, (l). The lower holes are identified as 1, 2, 3 & 4. Insert the pin into hole 3 for initial setting. Ensure the pin is located so that the roll pin passes through the retaining slot.



Fully raise the Stripper Header and check that the gauge wheels clear the ground.

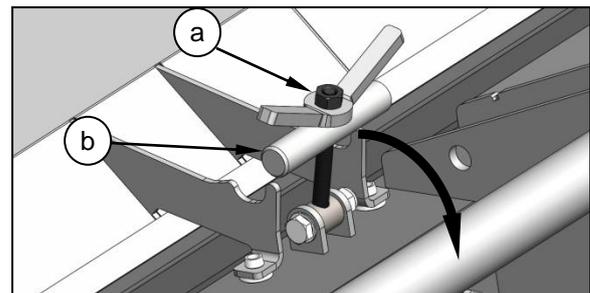
It may be necessary to adjust the gauge wheels for taller crops in which case both pins are likely to be moved down a position.

Check the tyre pressures and wheel nut torques, tyres should be inflated to 3.9 bar (57 psi); wheel nut torque should be 210 Nm (155 lb/ft).

INITIAL GAUGE WHEEL SETTINGS		
PIN	HOLE POSITION	PIN/ARM POSITION
UPPER	B (A PRE-2015)	PIN ABOVE TOP ARM (h)
LOWER	3	PIN BELOW GAUGE WHEEL ARM (l)
	1 (TRANSPORT)	

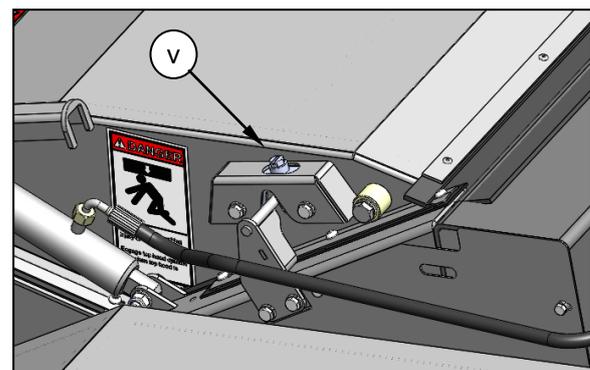
6.10 ADJUSTING THE AUGER CLEARANCE

Before use, especially if the adaptor plate has been adjusted, the auger clearance must be checked. The Stripper Header must be attached to the combine and lowered to the ground.



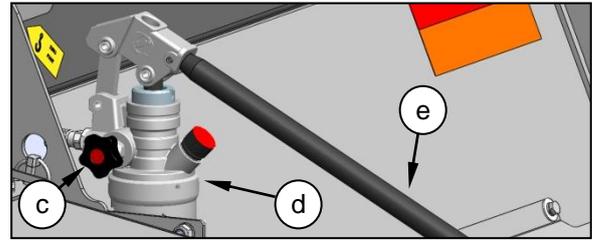
⚠ Stop the machine and implement the safe stop procedure

Open the hood. To do this, unwind (anticlockwise) the two retaining nuts (a) and release the retaining bars (b).

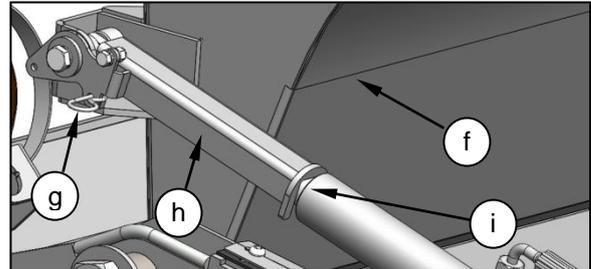


Turn the slam latch bolt (v) anticlockwise to release the hood.

Turn tap (c) fully clockwise on the hand pump (d). Operate the hand pump handle (e) and fully raise the hood (f).

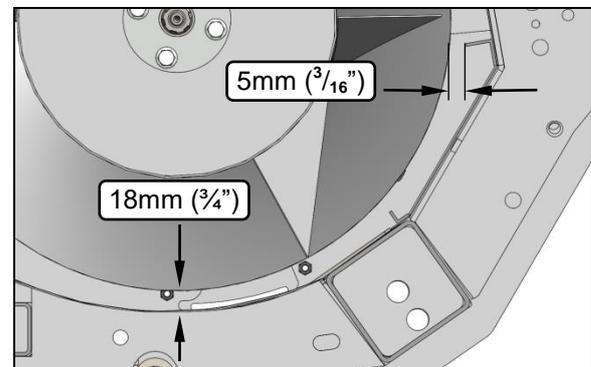


Remove the R clip (g) to allow the ram stop (h) to drop into position. Ensure the ram stop is fully lowered and engaged on the hydraulic ram (i). Refit the R clip (g) in the lower hole to secure the ram stop.



⚠ Use the hood ram stop

Check the auger flight clearance. There should be a gap of 18mm ($\frac{3}{4}$ ") between the flight and the bottom of the auger trough and 5mm ($\frac{3}{16}$ ") between the auger flight and rear scraper.

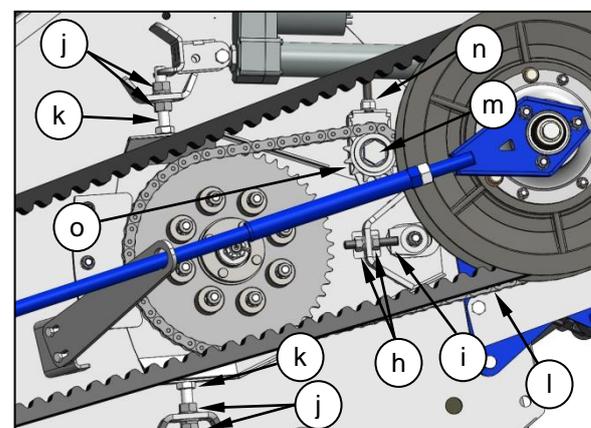


Adjust the auger equally at both ends (and in the centre on 36' & 42' models) in order to get the correct clearance, along the length of the auger. Both the end guards will need to be removed.

At the ends to move the auger forwards or backwards, wind the nuts (h) along the adjuster (i).

To move the auger up and down, wind the nuts (j) on the setscrews (k).

It may be necessary to tension or slacken the auger drive chain (l). Slightly slacken the idler spindle (m), then turn the nut (n) to raise or lower the idler sprocket (o). Fully tighten the idler spindle (m) ensuring that the chain does not become too tight.



Adjust the auger at the other end, ensure the nuts (h & j) are fully tightened.

To adjust the centre of the auger on 36' and 42' models firstly remove the locking bolt (p), then slightly slacken the sliding bolts (q).

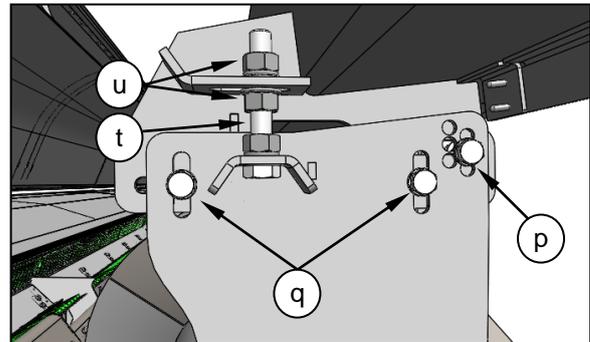
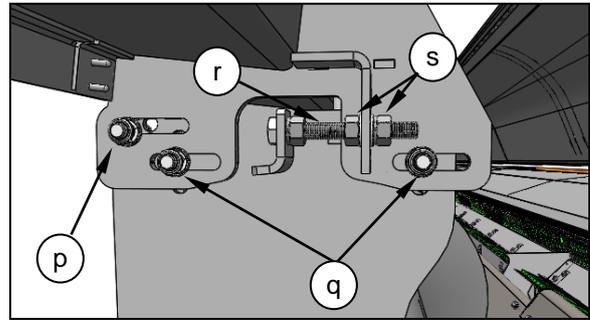
To move the auger forwards or backwards, hold the setscrew (r) and wind the nuts (s) along it.

To move the auger up and down, hold the setscrew (t) and wind the nuts (u) up/down it.

When the auger is correctly adjusted refit the locking bolt (p). It may be necessary to adjust the auger slightly in order for a hole to line up. Tighten the sliding bolts (q) and ensure the nuts (s & u) are fully tightened.

Ensure that there is clearance between the auger flight and paddles and the combine feeder house and combine elevator chains.

Refit all guards, then lower and secure the hood.



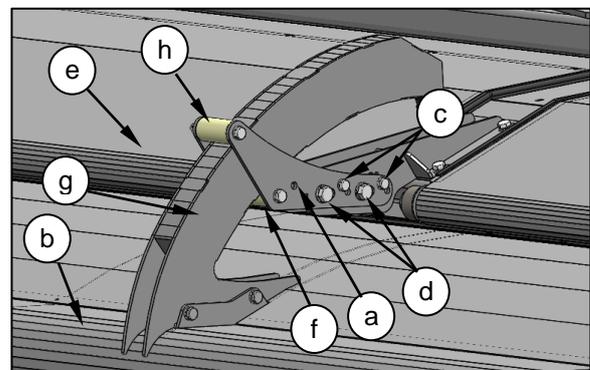
6.11 CROP DEFLECTOR SUPPORT (42' MODEL ONLY)

XCV42 and XCS42 models have a central crop deflector support that will need to be adjusted once the Stripper Header is mounted on the combine.

Raise the Stripper Header so that the skids are just clear of the ground and adjust the crop deflector so that the height indicator is on the yellow setting; see Section 8.2.3.

⚠ Stop the machine and implement the safe stop procedure

Before adjusting the roller guide arm (a) place a jack underneath deflector (b) to support it in the centre. Then remove the locking bolts (c) and slightly slacken the sliding bolts (d). Adjust the jack so the gap between the crop deflector (b) and hood (e) is the same in the centre as it is at the ends. Adjust the roller guide arm (a) so that the bottom roller (f) contracts the underside of the support (g). Refit the locking bolts (c) in the nearest aligning holes and tighten the sliding bolts (d).



Remove the jack then raise and lower the crop deflector (b) to ensure that the bottom roller (f) supports the weight of the crop deflector and the top roller (h) does not contact the support (g) in all positions.

⚠ Stop the machine and implement the safe stop procedure



Engage the crop deflector stop or prop the crop deflector when checking the crop deflector support.

When the crop deflector is fully raised the bottom roller (f) should locate at the bottom of the support (g) and when fully lowered the bottom roller (f) should contact the end of the support (g). Adjust the roller guide arm (a) forwards or backwards to achieve this.

6.12 MONITOR

The Stripper Header is supplied with a monitor kit and combine loom. This connects to the wiring loom already installed on the Stripper Header.

The monitor and combine loom should be installed by your Shelbourne dealer.

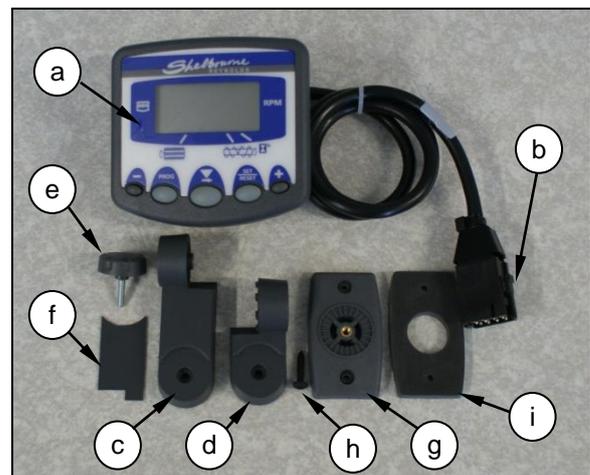
6.12.1 Head Unit

Confirm with the machine operator on where to mount the head unit (a) in the cab. The head unit must not restrict the view out of the cab, nor impede the use of the controls, but must be easy to view and within reach from the operator's seat.

Contact Shelbourne for guidance of suitable places to mount the head unit.

The head unit is fitted with a flying lead with a 12-way "Qikmate" connector (b) onto the junction box lead. It is supplied with a mounting kit comprising the following parts.

- 1 x Long Bracket (c)
- 1 x Short Bracket (d)
- 3 x Clamping Knobs (e)
- 1 x Cover Plate (f)
- 1 x Mounting Plate (g)
- 2 x Self-Tapping Screws (h)
- 1 x Mounting Pad (i)



6.12.2 Head Unit Mounting

The instrument mount is designed to offer maximum flexibility in positioning the head unit, either from the right hand side of the cab, from the dashboard or from an overhead position.

Snap the cover plate into the recess of the long bracket (it only fits one way).

Assemble the two brackets, and mounting plate with clamping knobs, and attach to the head unit. Each pivot point on the mounting bracket can be indexed to angle the head unit in relation to the mounting plate.



Either the long or short bracket can be attached to the head unit, whichever gives the most suitable orientation. Place the mounting pad underneath the mounting plate. Having established the orientation for the bracket, fix the mounting plate to the cab with the self-tapping screws provided.

 **Do not drill into a ROPS or FOPS frame.**

If fixing the mounting plate to plastic, e.g. the dashboard or other cab moulding, it is recommended to use M4 screws with large diameter washers to strengthen the mounting point.

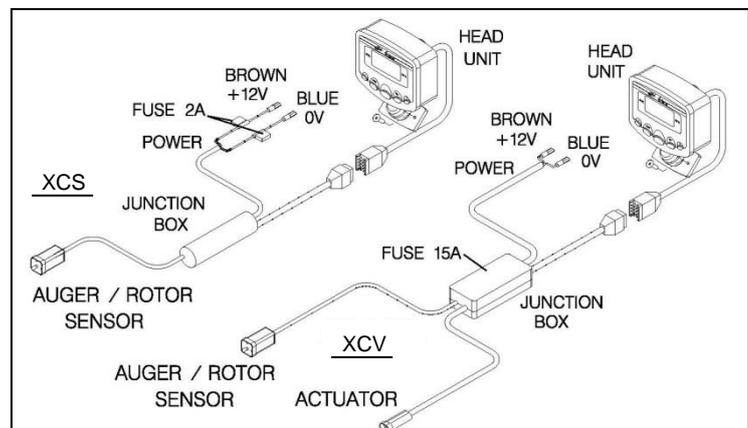
Do not attempt to adjust the mounting bracket assembly without sufficiently slackening off the clamping knobs, as this could damage the bracket.

6.12.3 Combine Loom

There are two different combine looms depending on the Stripper Header model.

XCV model looms have a rectangular junction box with four cables. A fused 15 amp power supply is required to operate the variable speed actuator. A 15 amp blade fuse is located on the PCB in the junction box.

XCS models are supplied with a loom which has a cylindrical enclosed junction box with three cables. Two inline 2 amp blade fuses are positioned in the power cable and protect the system.



6.12.4 Junction Box

The junction box is not sealed. It must be located where it will be protected from excessive moisture and dirt. It is typically positioned on the cab floor underneath the right hand console.

6.12.5 Power Supply

The monitor operates from a 12V DC supply.

Route the power lead back to a switched, fused point, e.g. auxiliary connection, power strip (John Deere), back of the ignition switch or the fuse box.

Connect the brown wire of the power supply lead to +12V. On XCV models, if the supply fused rating is not known an in-line fuse holder should be fitted with a 15 amp fuse, to protect the power lead.

On some John Deere models when connecting a XCV loom to the power strip it may be necessary to connect to the permanent +12V instead of the switched +12V in order to operate the variable speed linear actuator.

The current draw on the head unit is insignificant but it is recommended to disconnect the power supply when storing the combine.

Connect the 0V terminal (blue) to the ground connection, bodywork or chassis. Ensure the body work connection is onto bare metal and that the connection point gives a good grounding path to the battery.

6.12.6 Cable Routing

Route the cables (two on an XCV, one on an XCS) neatly out of the cab, down the combine elevator to the feeder house. Typically the cables can be routed through access holes in the cab floor and then neatly secured. The two or four way connectors on the end of the cables can be removed with a special tool to enable the cable to pass through smaller holes.

Ensure there is enough slack in the cables to allow the combine elevator to be fully lowered without damaging the cables and that cables are secured and clear of pinch points. Check that the cables are not contacting any components that will get hot when the combine is working and thus cause damage.

Leave approximately 300mm (12") of free cable at the left hand side of the feeder house to attach to the connectors on the Stripper Header.

It is likely that the cables will be longer than required. Excess cable should be neatly coiled up and secured underneath the cab.

Tidy all the cables inside the cab and avoid excess cable to eliminate trip hazards. Cables can be routed underneath floor mats and inside cab mouldings.



Refer to Section 2.11 for accident prevention information

Contact your Shelbourne dealer for further advice when preparing your combine.

7.1 COMBINE REQUIREMENTS

When using the Stripper Header, the following features are required on the combine, (Some of these features may already be fitted as standard).

1. Certain makes and model of combine require a maize/corn header drive kit as in some crops and conditions the conventional cutterbar header drive will not be able to transmit sufficient power. The corn/maize header drive kit will increase the power available to drive the Stripper Header.
2. Combine grain loss monitors, mainly on the sieves.
3. De-awner, concave or grate blanking plates, as well as alternative grates/concaves.
4. Lights on the top corners of cab for night work. The lights which are mounted at the bottom of the cab are designed to throw the light through the conventional cutterbar header reel, but as the Stripper Header has a crop deflector, the light cannot shine through it. The operator will require light in front of the crop deflector where the crop enters the header.
5. A straw chopper will be useful for dealing with straw intake in laid and lodged crops.
6. The Stripper Header tends to be heavier than a conventional cutterbar header so some combines may require an additional or larger feeder house lift cylinder.

The following adjustments need to be checked and carried out:-

7.2 HEADER LOWERING SPEED

The Stripper Header is heavier than most types of conventional cutterbar headers, therefore, when on the combine, it may lower at a very fast speed unless adjusted.

When set correctly, the header will gently lower to the ground without banging on the skids. Header damage can be caused if the drop is too fast.

Refer to the CMOM for adjustment of the header lowering speed.

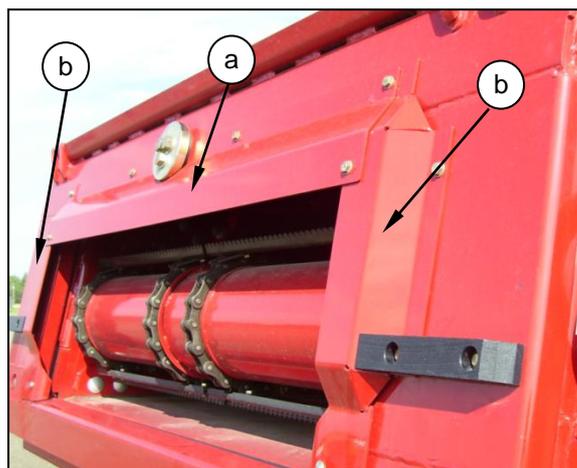
7.3 COMBINE HEADER SELECTION

Some combines will automatically recognize the type of header that is attached. Typically the Stripper Header is not recognized, in which case manually select the grain platform option. It may be necessary to select the manual reel option as the Stripper Header does not use this hydraulic function. Refer to the CMOM when selecting the header.

7.4 COMBINE FRONT ELEVATOR DUST SHIELD

In most situations the combine front elevator dust shields (a & b) can be left in place. If the centre section (a) of the elevator dust shield has to be removed the outer side deflectors (b) should be left in place. It may be necessary to bolt or self-tap the top of the two side deflectors so they are secured firmly to the front of the feeder house.

Some elevator dust shields may need to be removed altogether as they are built into the header adaptor plate itself.



7.5 FRONT FEEDER CHAIN POSITION

Typically the combine front feeder chain drum should be in the down position when used with a Stripper Header. Occasionally to improve feeding it may be necessary to raise the front feeder chain drum into the top (corn/maize) position. Consult CMOM for instructions on how to do this.

7.6 LEVELLING THE HEADER

The header should be parallel with the front axle of the combine. If it is not, then it should be adjusted according to the CMOM, as the adjustment method is the same as that for a conventional cutterbar. Alternatively adjust the adaptor plate springs as described in Section 6.8.

7.7 HEADER HEIGHT INDICATOR

This should be set as described in the CMOM.

7.8 HEADER ENGAGEMENT CALIBRATION

On some models of combine it is possible to calibrate the header drive engagement so that the stripping rotor starts smoothly; this reduces the likelihood of breaking a shearbolt on start up. Consult the CMOM for instruction on how to do this.

7.9 THRESHING, SEPARATING AND CLEANING SYSTEM ADJUSTMENT

As there is less straw intake with a Stripper Header in most crop conditions it will typically be necessary to run the drum and concave (conventional) or rotor and grates (rotary) with minimum clearances as there is less bulk of crop to thrash. On certain models of combine it may be necessary to centralize the concaves also.

Refer to the CMOM to reduce this clearance and reset the stops.

In order to assist threshing and separation, blanking plates, closure plates and/or different concaves/grates may be required depending on combine model and crop. In order to get an even distribution of material across the combine pre separator and

sieves, particularly on single rotor machines, it may be necessary to fit separator closure plates on one side and remove all hillside plates which restrict lateral movement of material and adjust deflectors.

Due to the higher concentration of grain and chaff on the sieves when using a Stripper Header, typically the combine will be operated with the sieves more open and with a higher fan speed.

Refer to the CMOM when making adjustments to the threshing, separating and cleaning system.

Refer to the Shelbourne Stripper Header Combine Settings Guide for recommended settings and combine configuration.

7.10 COMBINE MODEL

The Stripper Header drive system, adaptor plate, hydraulic coupler and electrical plug are tailored to the specified combine model.

If changing combine model consult your Shelbourne dealer.

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**Refer to Section 2.12 for accident prevention information**

As the Stripper Header does not feed much straw into the combine the combine settings may vary from those used with a conventional cutterbar.

Please refer to the Shelbourne Stripper Header Combine Settings Guide for the settings of certain components of the Stripper Header, adjustments and set up for a range of popular combines in various crops. The guide is provided with the Stripper Header but additional copies are available from your Shelbourne dealer. Setting information is also available from the Shelbourne website, www.shelbourne.com.

It is impractical to give the settings for every crop variety and conditions in the various soil types and weather conditions, thus the settings given in the Shelbourne Combine Settings Guide are initial settings to be used as a starting point.

For further information please contact your Shelbourne dealer.

Field adjustment details are only given for the Stripper Header. For combine adjustment procedures use the CMOM.

8.1 FIELD ADJUSTMENTS**8.1.1 Crop markers**

Markers are of the fixed type with a rod merely as a visual aid to ensure you harvest with the full width of the header. They are fixed in an optimum position and therefore do not require adjusting.

8.1.2 Header height

The height of the header is adjusted from the combine cab by the operator using the combine's header height control.

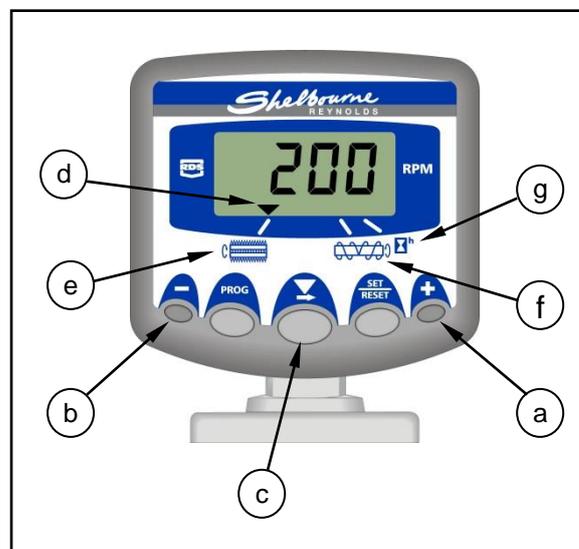
8.1.3 Crop deflector

The crop deflector is adjusted hydraulically by the operator from the combine cab using the combine's conventional header reel lift control. To raise the crop deflector, operate the combine reel raise control and vice versa. If speed of operation is too fast this may be adjusted on the combine; refer to the CMOM. The position of the crop deflector is shown by the colour coded indicator rod.

8.1.4 Stripping rotor speed

The rotation speed of the stripping rotor on a XCV machine is infinitely variable between approximately 430 and 830 rpm. This is adjusted electrically from the cab with the monitor. The speed may be increased or decreased at any time during field operation to suit the crop conditions by simply pressing the + button (a) to increase rotor speed or the - button (b) to decrease the rotor speed.

NOTE: The actuator that adjusts the speed on a XCV has no limit switches; therefore if the rotor speed does not change within a 3 second period, the output will switch off and remain off until the +/- button is released and pressed again. This is designed to prevent the circuit/actuator from being damaged when the limit is reached.



XCS machines have a fixed drive arrangement; the stripping rotor speed can be set at different speeds by changing the pulley combination, as described in Section 9.4. There are two different XCS drives, either HTD (cogged belt) or Vee belt. The HTD has four stripping rotor speeds of approximately 470, 535, 675 & 775 rpm. The Vee belt XCS drive has six speeds of approximately 460, 500, 550, 660, 720 & 790 rpm.

8.1.5 Monitor

The monitor displays the rotational speed of the stripping rotor and auger, as well as the working hours.

Pressing and releasing the select channel button ▼ (c) will advance the display, the channel indicator (d) highlighting the current displayed channel, rotor speed (e), auger speed (f) and working hours (g). The working hours are displayed for 10 seconds before returning to display the rotor speed.

The monitor is fitted with an audible alarm. As the speed of the rotor and/or auger reduces, due to overload or blockage, the alarm will sound, warning the driver to slow down, stop or raise the header. The rotor alarm emits an intermittent tone, whereas the auger alarm emits a continuous tone. The channel indicator will automatically indicate whether the rotor or auger has reduced speed during operation and the display will flash, showing the relevant speed.

The alarm will continue to sound until either the correct speed is restored, or the **PROG**, ▼ or **SET/RESET** buttons are pressed.

The auger speed is monitored to alert the driver that the auger is blocked. The alarm speed is factory set at 100 rpm.

Monitoring the rotor speed enables the driver to gauge the effort required by the rotor to strip the crop. By correctly setting the audible alarm speed, the torque limiter shearbolt can be prevented from shearing.

The rotor alarm speed value is adjusted semi-automatically (auto-set feature) using a percentage value, this is factory set at 8%; therefore the alarm will sound when the rotor speed drops by 8% of auto set value.

8.1.6 Auto setting the rotor alarm speed

The rotor alarm speed needs to be auto set whenever the stripping rotor speed has been changed. This should be set with the machine running, out of the crop. Use the following procedure:

1. PRESS the  button to select the rotor speed channel.
2. With the rotor running at the normal “no load” speed (not in work), PRESS and HOLD the  button for 5 seconds.
3. The display will then show “**AU**tO” and the auto-calibration commences.
4. RELEASE the  button.
5. WAIT for 5 seconds. The display will then show “**DonE**”. The instrument then calculates the appropriate alarm speed and saves it to memory.

NOTE: If you change the rotor speed the above steps will need to be repeated to auto-calibrate the rotor alarm speed.

8.1.7 Setting rotor speed alarm percentage drop

If after auto setting the alarm speed the shearbolt breaks before the audible alarm is heard, then the rpm warning value is too low. This can be changed by reducing the rotor speed drop percentage figure. This is done as follows:

The factory default setting is 8%. Range: 0 to 30%.

1. PRESS the  button to select the rotor speed channel.
2. PRESS and HOLD the **PROG** button for 3 seconds to display the % factor currently set.
3. Continue HOLDING the **PROG** button and PRESS  to select the digit to change.
4. HOLD  to change the selected digit.
5. RELEASE  to select the next digit and repeat as above, otherwise simply release both buttons. The instrument will then return to the normal display mode.

8.1.8 Manually setting rotor alarm speed

Alternatively the rotor alarm speed can be set manually, with the following procedure:

The rotor must be stopped.

1. PRESS the  button to select the appropriate channel to programme.
2. PRESS and HOLD the $\frac{\text{SET}}{\text{RESET}}$ button for 3 seconds to display the alarm speed currently set for that channel.
3. Continue to HOLD the $\frac{\text{SET}}{\text{RESET}}$ button and PRESS  to select the digit to change.
4. HOLD  to change the selected digit.
5. RELEASE  to select the next digit and repeat as above, otherwise simply release both buttons, and the display will return to the normal mode.

8.1.9 Working hours

The working hours can be reset to zero as follow.

1. PRESS the  button to select the  channel, to display the working hours.
2. PRESS and HOLD the $\frac{\text{SET}}{\text{RESET}}$ button for 5 seconds, the unit will then beep.
3. The display will reset to **0.0**.

8.1.10 Power on reset

“ProG” on the display indicates the instrument memory has been corrupted. You can attempt a "Power-On Reset".

1. Switch the power supply off.
2. PRESS and HOLD the three middle buttons (**PROG**, , $\frac{\text{SET}}{\text{RESET}}$) and switch the power on.

If the instrument can recover itself, it will perform a short self-test routine and return to the normal display. If not, then the instrument must be returned for servicing or replacement.

NOTE: All alarm settings will be reset to the factory default values.

8.2 HARVESTING WITH THE STRIPPER HEADER

To get optimum performance from your Stripper Header the operator should follow the procedures and checks of operation:

Ensure that all the necessary procedures of preparation for use described in this manual have been carried out.

Set the combine and header to the Shelbourne Stripper Header Combine Settings Guide for the particular crop to be harvested.

8.2.1 Engaging the drive

In order to prevent the PTO shaft shearbolt from shearing when engaging the header drive, follow the procedure below:

- Run the combine engine at idle speed.
- If the header engagement is manual, engage the drum of the combine and then gently operate the lever to engage the Stripper Header, avoiding snatch in the drive.
- If the combine is fitted with electric or hydro-electric clutch engagement, the header drive should be engaged before the separator, causing the combine separator and the header to engage at the same time, thus reducing the snatch in the header drive line.
- Increase combine engine speed to the working rpm.

8.2.2 Stripping rotor speed setting

The minimum speed should be selected to ensure that all grain/seed is stripped from the ear of the crop. Consequently crops that are hard to thrash will require higher rotor speeds and vice versa.

Crops that are prone to wrapping, such as Linseed, may require a higher rotor speed to prevent them from becoming wrapped around the rotor.

It is unnecessary to run the rotor faster than that required to strip the crop, as this only causes the machine to intake more straw and will also reduce the life of the stripping elements.

8.2.3 Crop deflector

The crop deflector is usually set first and then the header height is adjusted to suit.

The crop deflector setting is an important adjustment to ensure optimum performance of the Stripper Header.

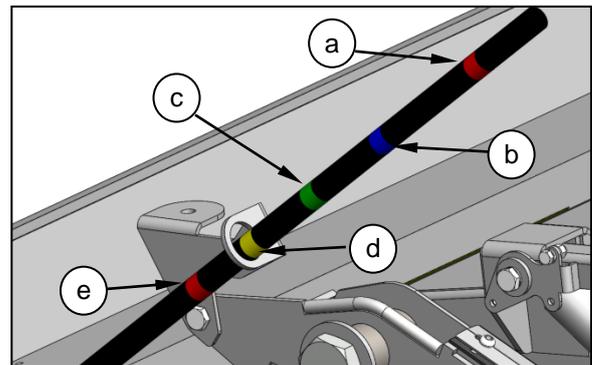
When correctly set (along with the header height) in standing crop, the front nose of the crop deflector should deflect crop below it, the top of the crop being level to 100mm (4") below the top of the nose, therefore creating a seal between the crop and the lower edge of the crop deflector.

When correctly set in laid crops, the front nose of the crop deflector should ride over the top of the crop, the aim being not to push the crop down any further but to close the gap at the front to prevent grain losses.

When harvesting laid and standing crop in the same pass, lower the crop deflector to recover the laid crop, therefore pushing over the standing crop, so it becomes laid.

The height indicator, fitted to either the left or right hand side, will assist the operator to set the crop deflector in the best position for various crop conditions as described below.

	COLOUR	CROP
a	Upper Red (fully down)	Laid crops (grass, clover)
b	Blue	Lodged crops
c	Green	Short crops
d	Yellow	Normal Operation
e	Lower Red	Very tall crops
f	Above Lower Red (fully up)	Servicing only



8.2.4 Header height setting

The header height will need to be continually adjusted to suit the crop height as the machine travels across the field.

When correctly set in standing crops the heads of the crop should be approximately level with the top to 100mm (4") below the top of the crop deflector.

When working in laid crops the header should be allowed to float over the ground contours using the header skids and combine header float system. Do not exert too much of the header weight onto the skids as this will cause the skids to dig into the ground.

If harvesting short crops it might be necessary to raise the skids, see Section 6.5, to allow the stripping rotor to operate close to the ground without the skids digging in. However, the rotor will be at greater risk of being damaged by ground contact.

The aim is to carry the rotor as high as possible to reduce the amount of straw intake, but it must be low enough to lift and remove heads which may be attached to stems low down in the crop, e.g., bent over stems. Be sure that the crop deflector is set, so that the seal is maintained between the crop and the lower edge of the crop deflector.

8.2.5 Forward speed

The Stripper Header is capable of very fast forward speeds due to its rotary action, unlike a conventional cutterbar.

The forward speed will depend on the following:

1. Crop ripeness
2. Moisture level
3. Standing or laid
4. Levelness of the field
5. Power available to drive the rotor
6. Combine capacity
7. Crop yield

Normal operating speeds in standing crops are expected to be between 4 - 12 km/h (2.5 - 7.5 mph). In laid crops the speed may be slower.

8.2.6 Harvesting a sample

Harvest approximately 50 metres (150') of crop, at a comfortable forward speed.

Then stop the machine and look at the stripped crop for the following:

- Check that all grain is stripped from the heads.
- Check that there are no heads which have been missed low down in the crop.

NOTE: The Stripper Header will not recover pre-harvest losses.

- Check combine sieve and straw walker losses.

NOTE: Do not do this from behind the combine where you have just stopped. The check should be carried out in an area where there has been continuous crop flow through the machine, where the combine was still moving.

- Check header losses:

NOTE: This should again not be carried out where the machine has just stopped. An easy check is to back the combine away from the crop. Look in the area 2 - 3 metres (6-10') back from where the header stopped, but before you get to the area where the combine sieves have blown out unwanted material.

- Check the grain sample for cleanliness and cracked grains.

Adjust combine and header to correct the results and repeat checks until the results are satisfactory.

Reset monitor alarm if stripping rotor speed has been changed.

8.3 USEFUL HARVESTING TIPS

8.3.1 During operation

When operating the machine in the field it is important to keep the Stripper Header crop deflector and header height to the correct settings to suit the crop as it varies across the field. This means the operator will have to raise and lower the header and crop deflector continually to suit the crop. If the crop is very even then very little adjustment will be necessary. If the crop is very uneven then the operator will have to adjust the header to suit the conditions much more frequently. Use the combine grain loss monitors to determine the forward speed, unless the field is too rough or if the stripping rotor power requirement is high. This can occur in unripe or damp crops, and should be indicated by the audible alarm on the monitor, before the shearbolt shears.

8.3.2 Laid crops

When harvesting laid crops, it will be necessary to operate with the rotor as close to the ground as possible, but without digging up dirt. This is achieved by floating the header on the skids. When set correctly, the skids will prevent the rotor from touching the ground. To keep header losses to a minimum, it may be preferred in dry laid cereal crops (not rice) to approach by harvesting either across or towards the way of lay. Losses will increase if harvesting with the way of lay as the rotor is unable to lift the heads of the crop off the ground. However, if harvesting standing crop and small patches are laid, e.g., at headlands, these patches can be harvested with the way of lay providing that the header and crop deflector are lowered enough.

When operating in laid crops, forward speed will be limited due to higher straw intake, and higher rotor power requirement.

8.3.3 Laid and standing crops

There will be occasions where standing and laid crop will need to be harvested in the same pass. In these situations the header should be lowered down to lift and recover the laid crop, consequently the standing crop will be pushed down as well.

8.3.4 Monitor audible alarm

When operating the machine, it will be noted that the power required to drive the rotor depends mainly on forward speed and the height of the rotor from the ground.

- i.e. The closer the rotor is to the ground, the more the power requirement and hence the rotor speed will slow.
The faster the forward speed, the more the power requirement and hence the rotor speed will slow.

If the shearbolt breaks before the audible warning is heard, then the rpm warning value should be changed; see Sections 8.1.6 and 8.1.7.

The setting value is determined by operating the machine in work and, gradually increasing the forward speed, closely watching the rotor rpm, until the shearbolt shears or the combine becomes overloaded and the output shaft speed drops.

8.4 UNBLOCKING THE AUGER

The auger may become blocked up, which could be caused by a foreign object, poor feeding to the combine elevator, incorrectly adjusted auger or unsuitable harvesting conditions. When the auger becomes blocked the auger torque limiter (slip clutch) will release, or possibly the PTO shaft shearbolt will shear. In either situation the audible monitor alarm will sound and the monitor display will show 0. The auger torque limiter slipping will also be audible.

Stop forward motion, disengage the header drive and reduce the combine engine speed to idle. If the shearbolt has broken it will need to be replaced; see Section 8.6. It may be possible to release the blockage by reversing the auger. To do this engage the combine header drive reverser; refer to the CMOM. Run the header in reverse for a few seconds and disengage the header drive reverser. Engage the header drive, run the header and see if the blockage has cleared.

If the auger blocks again it may be caused by a foreign object or too large a lump of material to feed. In this case reverse the header drive for a few seconds.



Fully lower the Stripper Header to the ground



Stop the machine and implement the safe stop procedure

Raise the hood.



Use the hood ram stop

Remove the foreign object or large lump of material; it may be possible to spread the lump of material within the auger trough.

Lower the hood and run the header, if the auger blocks again repeat the above procedure as there may be further lumps of material or foreign objects.

Before continuing harvesting inspect the auger, auger trough and combine elevator for any signs of damage. It may be necessary to adjust the auger clearance.



Close and secure the hood

8.5 UNBLOCKING THE ROTOR

The rotor can become blocked if material or a foreign object, such as wire, wraps around it or a large foreign object is picked up. When the rotor becomes blocked the rotor drive belt will slip or the PTO shaft shearbolt will shear. In either situation the audible monitor alarm will sound and the monitor display will show 0.

Stop forward motion, disengage the header drive and reduce the combine engine speed to idle. If the shearbolt has broken it will need to be replaced; see Section 8.6.

Fully raise the header.



Stop the machine and implement the safe stop procedure



Engage the combine's feeder house cylinder lock

Disconnect the PTO shaft from the combine.

Inspect the stripping rotor and remove any material or foreign objects that have become wrapped round or jammed in the rotor.

Inspect the rotor, stripping fingers and crop deflector for damage, then straighten or replace any bent or broken stripping fingers; see Section 9.5. If the stripping rotor or any of the panels are bent then it may be necessary to replace them. Contact your Shelbourne dealer.

Remove feeder house cylinder lock and lower the header to the ground and raise the hood.



Use the hood ram stop

Remove any foreign objects that could have entered the auger trough.

Lower the hood, reconnect the PTO shaft.



Close and secure the hood and refit all guards

Run the header. If the header operates noisily or with excessive vibration stop the header and contact your Shelbourne dealer.

8.6 REPLACING THE SHEARBOLT

The Stripper Header drive system is protected from overload and subsequent damage by a shear bolt located at the header end of the input PTO shaft.

When a shearbolt fails, drive is lost to both the auger and the rotor, the monitor will display 0 on both the rotor and auger channels and the audible alarm should sound, provided the alarm speed thresholds have been met. Consequently if a shearbolt is broken on start up the alarm may not sound.

If the shearbolt fails it must be replaced. Use only genuine Shelbourne shearbolts, part number BLTA10384.



Stop the machine and implement the safe stop procedure

Before replacing the shearbolt, ascertain the reason for the shearbolt failing, inspect the machine and clear any blockages if required.

Spare shearbolts (a) are stored on the rear of the main frame on the left hand side, just above the PTO shaft.

Disconnect the left hand end PTO guard retaining chain from the header (c). Depress the locking pin (d) and remove the PTO shaft from the Stripper Header.

Remove any remnants of the broken shearbolt, align the two halves of the PTO clutch and fit a new shearbolt (e), fully tighten the locking nut.

In some cases it may be necessary to remove the PTO shaft guard (f) in order to gain access to the shearbolt.

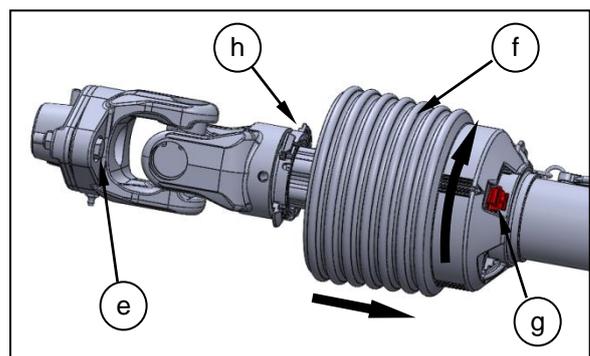
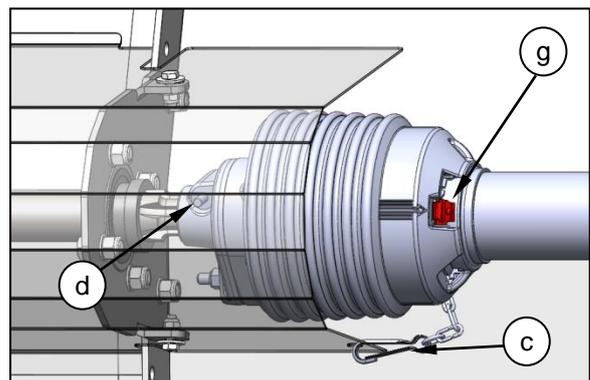
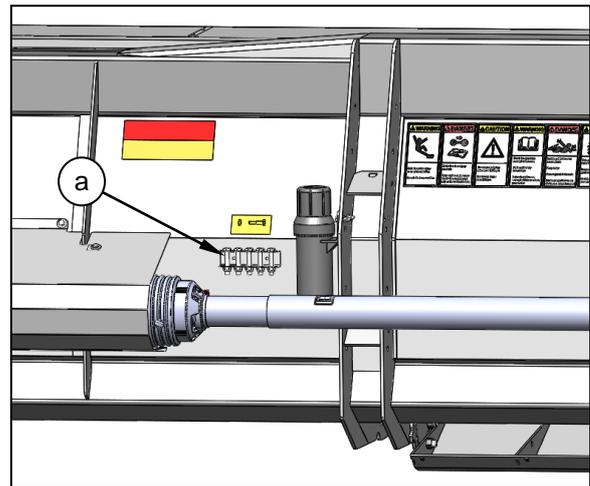
To do this leave the PTO shaft attached to the machine, disconnect the guard retaining chain (c) and then release the top edge of the red guard retaining clip (g). Rotate the guard (f) clockwise in order to release the guard from the three point locking collar (h). It may be necessary to use a screw driver to pry the locking collar around.

The guard should slide away from the shearbolt clutch allowing access to change the shearbolt. It may still be necessary to remove the PTO shaft from the Stripper Header input shaft.

Refit the guard and ensure it has engaged on all three points of the locking collar, rotate the guard anticlockwise, again a screw driver may be required to pry the locking collar, then refit the red retaining clip.

Refit the PTO shaft, depress the locking pin and slide the PTO shaft onto the header input shaft, until the pin has locked. It may be necessary to rotate the PTO shaft in order to align the splines.

Check that the locking pin has engaged properly on the shaft and refit the PTO guard retaining chain.



Replace any guards that were removed when replacing the shearbolt

8.7 TRANSPORTING HEADER



Refer to Section 2.13 for accident prevention information

Depending on local laws and traffic regulations, the Stripper Header can either be transported on the combine, or on a Shelbourne approved trailer.

Fully secure guards, covers, PTO shafts, hydraulic couplings and other components and raise gauge wheels before travelling on the highway.

Before travelling on the highway clear the machine of loose dust/debris.

8.7.1 Transporting on the combine

Highway regulations must be observed when taking the Stripper Header on roads, paths and other public places. Observe the maximum permissible width for road transport and ensure all necessary lighting, markings, warning signs and guards are fitted and are clean, visible and in full working order.

Fully lower the crop deflector and disconnect all the hydraulic connections and the PTO shaft from the combine when travelling on the highway, to prevent inadvertent operation.

Lock the adaptor plate and ensure that the header is securely latched onto the combine.

No person other than the operator may be allowed to ride in the combine. Do not allow riders on the combine.

Travel speeds should be such that complete control and machine stability are maintained at all times.

Use amber flashing warning lights when travelling on the highway, except where such use is prohibited by law. Adjust the lights so they are clearly visible to other road users.

Follow all recommended procedures in the CMOM for transporting the header.

8.7.2 Transporting on a trailer

When transporting the Stripper Header on a trailer use a Shelbourne approved trailer and a towing vehicle with sufficient capacity; refer to Section 4.3.

Ensure the header is correctly located and secured to the trailer before removing from the combine; refer to Section 4.3. Fully lower the crop deflector.

Ensure that all braking systems and lighting systems on the combine or towing vehicle and trailer are in full working order and that they can be fully and correctly operated.

Highway regulations must be observed when towing the header on public highways.

Reduce speeds on rough or undulating or sloping ground.

Follow all recommended procedures in the trailer manufacturer operator's manual for transporting the header.

8.8 TROUBLE SHOOTING CHARTS

PROBLEM	CAUSE	REMEDY
Grain left in stripped heads.	Rotor rotation speed too slow.	Speed up the rotor. (see Section 8.1.4).
	Stripping elements worn or broken.	Check elements, replace if necessary. (see Sections 9.5.2 & 9.5.3).
	Rotor too high when harvesting crop.	Lower rotor.
	Crop deflector too low, pushing the crop away from the stripping rotor.	Lift the crop deflector.
	Rotor drive belt slipping causing loss of rotor speed.	Reduce forward speed. Lift the header.
Heads unstripped at division plate between the rotors.	Rotor clearances and element clearance to the division plate incorrect.	Adjust centre stripping fingers as close as possible to the division plate. (see Section 9.5.4).
	Stripping fingers broken off at division plate.	Replace the element (see Sections 9.5.3 & 9.5.4).
	Fingers at division plate worn.	Replace the element (see Sections 9.5.3 & 9.5.4).
Excessive shedding of seeds at side of machine.	Header side guards badly bent or worn.	Replace or repair.
	Marker dividers are too aggressive.	Remove dividers.

PROBLEM	CAUSE	REMEDY
Crop wrapping around rotor.	Rotor rotation too slow.	Speed up the rotor (see Section 8.1.4).
Material not feeding to the header auger.	Auger trough or spill plate covered in mud.	Remove mud and clean.
	Damage to auger trough or spill plate.	Rectify damage & contact your dealer if necessary.
Auger torque limiter slipping.	Auger blocked by foreign object.	Clear blockage.
	Auger too low in auger trough.	Adjust the auger clearance. (see Section 6.10).
	Auger slip clutch spring tension incorrectly set.	Re-adjust springs. (see Section 9.1).
	Auger too far from feeder house	Adjust the auger clearance and move elevator chain forward (See CMOM).
Irregular feeding into feed elevator.	Elevator feed chain too low at entrance.	Raise chain. (See CMOM).
	Elevator feed chain too far away from auger.	Move auger back or move elevator chain forward. (See Section 6.10).
	Crop building up under dust cover.	Remove the centre section of the elevator dust cover.

PROBLEM	CAUSE	REMEDY
Excessive shelling of seeds at header.	Rotor too high in relation to the ground.	Lower header.
	Crop deflector too high.	Lower crop deflector.
	Crop deflector too low.	Lift crop deflector.
	Crop is laid and leaning away from direction of travel.	Approach crop from different angle.
	Forward speed too slow.	Increase forward speed.
Grain sample not properly cleaned.	No concave blanking plates fitted.	Fit concave blanking plates (See CMOM).
	Concave to drum clearance not close enough.	Adjust clearance (See CMOM).
	Bottom sieve open too wide.	Close the sieve slightly. (See CMOM).
	Drive speed too slow.	Increase drive speed (See CMOM).
Excessive cracked grain in grain sample.	Combine drum/rotor too fast.	Reduce drum/rotor speed (See CMOM).
	Concave set too close to drum/rotor.	Increase drum to concave clearance (See CMOM).
	Concave blanking plates fitted.	Remove plates one set at a time (See CMOM).
	Bottom sieve not open enough.	Open bottom sieve.

PROBLEM	CAUSE	REMEDY
Grain loss over the sieves.	Sieves blocked.	Increase air blast. (See CMOM).
	Top sieve blocked, air blast full.	Close top sieve slightly. (See CMOM).
	Too much air blast from the cleaning fan.	Reduce air blast or increase forward speed if possible to load more material onto the sieves (See CMOM).
	Excessive short straw on the sieves.	1. Reduce drum speed. 2. Open concave. 3. Remove concave blanking plates (See CMOM).
	For other causes see CMOM.	
PTO shearbolt torque limiter operating excessively.	Rotor hitting the ground.	Raise header.
	Forward speed too fast.	Reduce forward speed.
	Crop too unripe.	Allow crop to ripen.
	Rotor rotating too slow.	Increase rotor speed. (See Sections 8.1.4).
PTO shearbolt torque limiter operating before monitor alarm warning heard.	Audible warning device rpm value set too slow.	Check value setting (see Section 8.1.5).
		Check if alarm is functioning. If the above is correct see Sections 8.1.6 & 8.1.7.

PROBLEM	CAUSE	REMEDY
Crop wrapping in rotor ends and centre.	Anti-wrap plates out of adjustment.	Adjust (see Section 9.5.5).
	Anti-wrap plates not fitted.	Fit anti-wrap plates.
Excessive back feed from feed elevator.	Combine feed chain too low.	Raise combine front feed roller. (see CMOM).
	Combine cylinder speed too slow.	Speed up combine cylinder.
	Distance of feed elevator to auger too wide.	Move feed chain forward. (see CMOM).

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 Refer to Section 2.14 for accident prevention information

9.1 AUGER SLIP CLUTCH SETTING

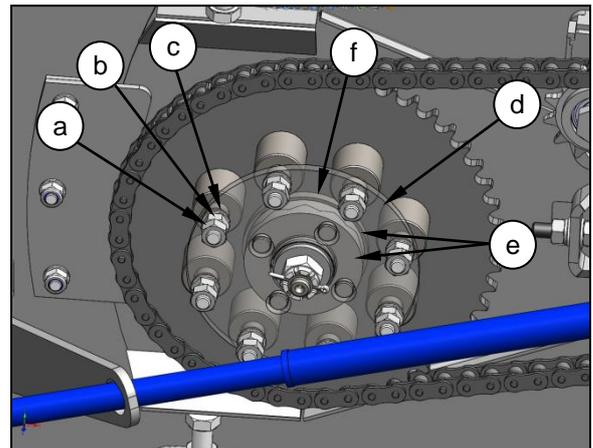
All Stripper Headers have an eight spring clutch arrangement. The spring length is pre-set by a spacer to a length of 50mm (2”).

 **Stop the machine and implement the safe stop procedure**

To check the adjustment of the springs, loosen the outer locknut on each stud (a), then turn the inner nut (b) until the spring is compressed to the length of the spacer. Then tighten the outer locknut.

If the clutch has slipped excessively the clutch plate teeth may be worn, in which case the clutch plates will need replacing.

Loosen and remove the outer locknut (a) then loosen and remove the inner nut (b) and washer (c). The drive disc (d) can now be removed exposing the two clutch plates (e).



Replace the clutch plates with two new ones, ensuring the four pegs locate into the clutch hub (f) and drive disc when refitted. Fit the nuts and washers and adjust as described above.

It may also be necessary to replace the thrust washer located behind the clutch hub (f). To do this the auger slip clutch will need to be removed and stripped, contact your Shelburne dealer.

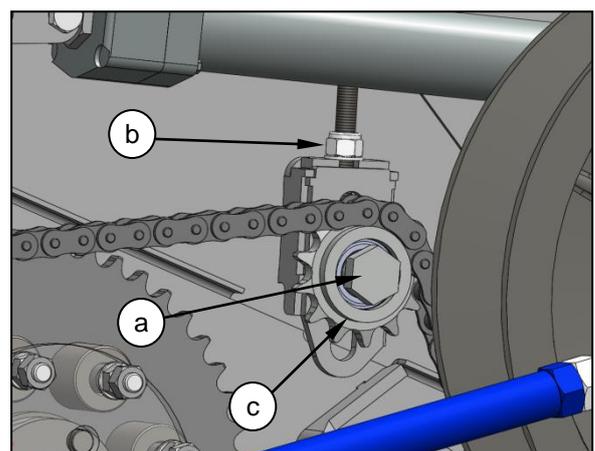
 **Replace all guards**

9.2 CHAIN TENSIONING

The auger drive chain is fitted with an adjustable idler sprocket, so that the chain can be correctly tensioned.

 **Stop the machine and implement the safe stop procedure**

To adjust the tension, slightly loosen the idler spindle (a), then turn the nut (b) on the adjusting stud to raise the idler sprocket (c) to correctly tension the chain. When



complete, tighten the idler spindle (a), check that the chain tension does not increase as the idler spindle is tightened.

Once all the adjustment has been used and the idler sprocket is at the top of the slot it will be necessary to remove a pair of links from the chain in order to tension the chain correctly.



Replace all guards

NOTE: Over tensioning could result in auger drive shaft failure/damage.

9.3 VARIABLE SPEED ADJUSTMENT

The variable speed rotor drive is tensioned by a spring compensated system coupled with a variable pressure device on the front rotor pulley. This twin system ensures exact tensioning of the drive belt regardless of operating conditions, which will in return prolong belt life.

When at rest it may appear that there is excessive slack on the top side of the belt, after running the rotor at idle speed the tension will automatically return, provided the belt maximum and minimum range is set correctly as described in Section 9.3.1.

NOTE: Pivoting the gearbox does not tension the belt.

It is **very important** to ensure that the variable speed pulleys are greased as specified, see Section 10.4.1. A lack of lubrication will prevent the pulleys from sliding freely and this will prohibit the belt tensioning system from functioning correctly.

If the belt slips or a loss of drive to the rotor is experienced, contact your Shelbourne dealer immediately as operating the header under these circumstances will damage the drive belt.

9.3.1 XCV drive belt position adjustment

The maximum and minimum rotor speed is pre-set on delivery with a speed range of approximately 430 to 830 rpm, this is altered by pivoting the gearbox pulley.

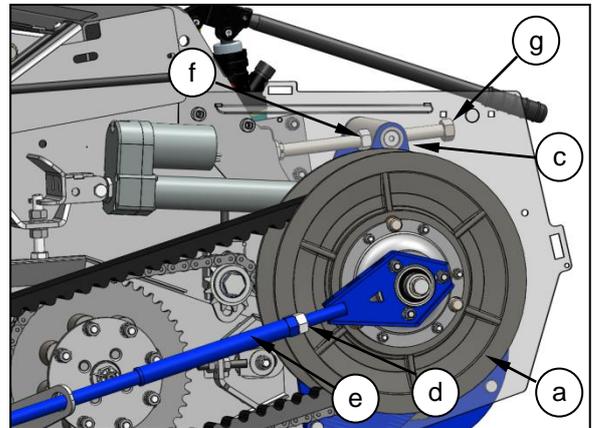
As the belt wears during use the gearbox may need to be adjusted in order to maintain the above speed range. Adjustment may also be required after servicing or maintenance work has been carried out.

The top surface of the drive belt **must never** protrude above the outer diameter of the pulley.

To adjust the position of the belt:

1. Run the machine at idle and slow the rotor speed to minimum using the monitor, (see Section 8.1.4). This will fully open the gearbox pulley sheaves (a).
2.  **Stop the machine and implement the safe stop procedure**
3. Remove the left hand drive guard and measure the gap between the rotor pulley sheaves (b). This should measure 61mm ($2\frac{13}{32}$ ").

4. To achieve the correct gap the gearbox pulley will need to be moved by pivoting the gearbox (c). Loosen the tie rod locking nut (d) and fully slacken the tie rod adjuster (e). Loosen the locking nut (f) and turn the gearbox adjuster rod (g). This will pivot the gearbox and gearbox pulley, forcing the rotor pulley sheaves to open or close. Tighten the locking nut (f).

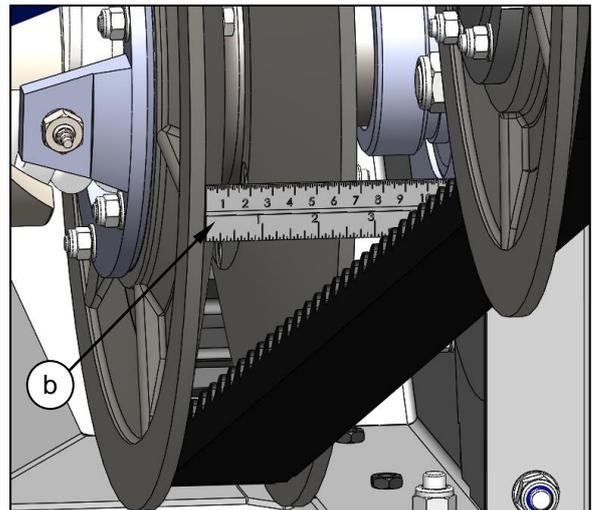


5.  **Refit the guard**

6. Run the machine at idle and speed the rotor up to maximum and then back to minimum using the monitor.

7.  **Stop the machine and implement the safe stop procedure**

8. Repeat steps 3, 4, 5, 6 & 7 until the required gap of 61mm ($2\frac{13}{32}$ ") is achieved.
9. The tie rod now needs to be adjusted. Run the machine at idle and speed the rotor up to maximum using the monitor.



10.  **Stop the machine and implement the safe stop procedure**

11. Disconnect the PTO shaft from the combine.
12. Turn on the electrical power to the monitor (**Do not run the header**) and operate the monitor as if slowing the rotor speed to minimum; see Section 8.1.4. This will allow the gearbox pulley sheaves to be fully opened. The belt will now be slack.
13. Turn the tie rod adjuster (e) until it just touches, then give it another $\frac{1}{6}$ turn and tighten the lock nut (d).

14.  **Replace all guards**

9.3.2 Changing the XCV drive belt

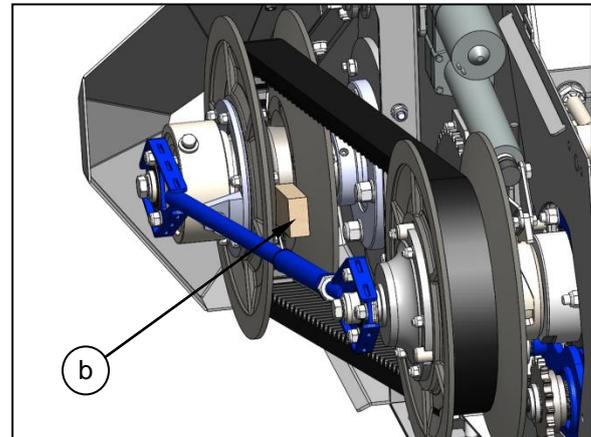
1. Run the machine at idle and speed the rotor up to maximum using the monitor.

2.  **Stop the machine and implement the safe stop procedure**

3. Disconnect the PTO shaft from the combine.

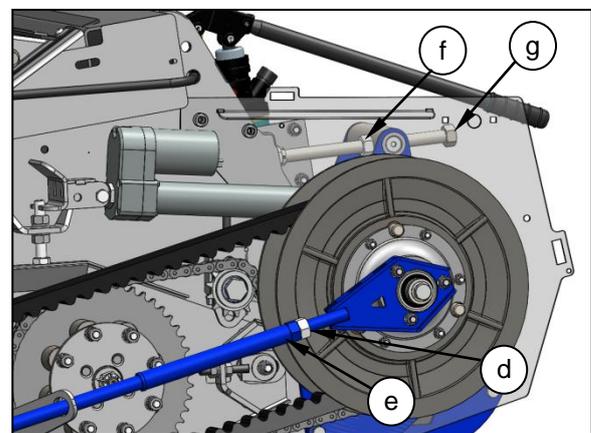
4. Remove the left hand drive guard.

5. Wedge a 25mm (1") thick hard wood block (b) between the two inner flat surfaces on the inside of the rotor pulley sheaves.



6. Loosen the tie rod locking nut (d) and fully slacken the tie rod adjuster (e). Loosen the locking nut (f) and turn the gearbox adjuster rod (g) anticlockwise to allow the gearbox pulley to move all the way forward.

7.  Turn on the electrical power to the monitor (**Do not run the header**) and operate the monitor as if slowing the rotor speed to minimum; see Section 8.1.4. This will allow the gearbox pulley sheaves to be fully opened. The belt will now be slack.



8. Ensure that the wooden block is wedged securely between the rotor pulley sheaves and remove the belt, first from the rotor pulley, then from the gearbox pulley.

 **Do not put hands between pulley sheaves**

9. Fit the new drive belt, first to the gearbox pulley and then to the rotor pulley. Ensure that the belt is fitted with the directional arrow pointing in the direction that the belt will travel.

10. Remove the block placed in the front pulley.

11. Adjust the gearbox pulley and tie rod as described in Section 9.3.1 to correctly set the belt. Refit the PTO shaft.

12. If it was not possible to wedge a wooden block between the rotor pulley sheaves prior to the belt being removed, the rotor pulleys can be pried apart using a suitable bar and a wooden block can be installed before fitting the new belt.

13.  **Replace all guards**

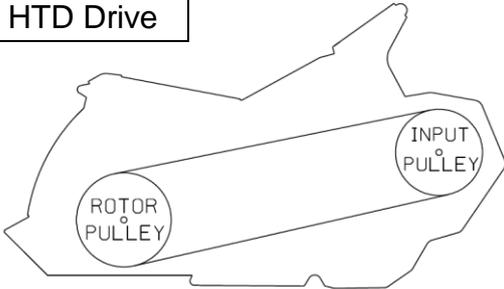
9.4 XCS STEP DRIVE MACHINES

There are two different types of drive systems that are fitted on the XCS Stripper Header: either HTD (cogged belt) or Vee belt. On both, the belt is tensioned by pivoting the gearbox and moving the position of the gearbox (input) pulley.

The HTD drive is fitted with a tie rod which connects between the rotor and gearbox pulleys, whereas the Vee belt drive has a short support on the rotor pulley only.

The speeds and pulley combinations are shown in the chart below. This is displayed as a decal on the machine.

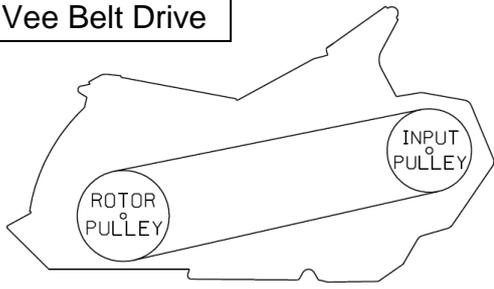
HTD Drive



SPEED SELECTION CHART		
APPROX ROTOR SPEED	ROTOR PULLEY SIZE	INPUT PULLEY SIZE
470 RPM	Ø13" / 72T	Ø10" / 56T
535 RPM	Ø13" / 72T	Ø11½" / 64T
675 RPM	Ø11½" / 64T	Ø13" / 72T
775 RPM	Ø10" / 56T	Ø13" / 72T

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Vee Belt Drive



SPEED SELECTION CHART		
APPROX ROTOR SPEED	ROTOR PULLEY SIZE	INPUT PULLEY SIZE
460 RPM	Ø14½"	Ø11"
500 RPM	Ø13¾"	Ø11"
550 RPM	Ø14½"	Ø13¾"
660 RPM	Ø13¾"	Ø14½"
720 RPM	Ø11"	Ø13¾"
790 RPM	Ø11"	Ø14½"

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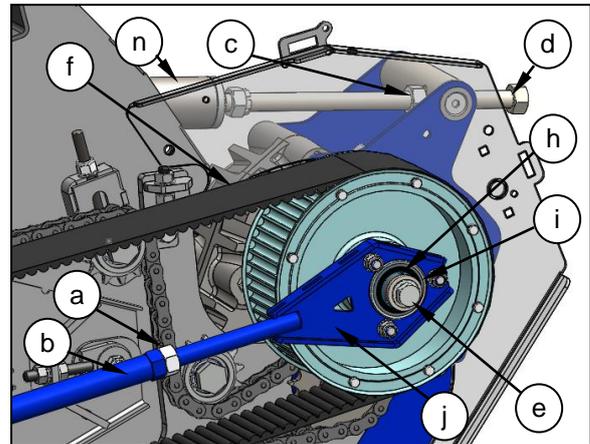
9.4.1 Tensioning the drive belt – HTD drive

The tension of the HTD drive belt is indicated by the spacer tube which fits over the spring on the gear box adjuster. The belt should be tensioned so that the spring is compressed to the same length as the spacer tube. It should still be possible to rotate the spacer tube.

To adjust the belt tension.

 **Stop the machine and implement the safe stop procedure**

1. Remove the left hand guard, then loosen the tie rod locking nut (a) and slacken the tie rod adjuster (b).
2. Loosen the locking nut (c) and turn gearbox adjuster rod (d). Turning clockwise will tension the belt as the gearbox pivots moving the input pulley.
3. Once the spring is compressed to the length of the spacer tube (n), tighten the locking nut (c).
4. Turn the tie rod adjuster (b) until it just touches, then give it another $\frac{1}{6}$ turn and tighten lock nut (a).



5.  **Replace all guards**

NOTE: If the belt tracks to one side and tries to climb the pulley contact your Shelbourne dealer

9.4.2 Changing the belt – HTD drive

To change the belt.

 **Stop the machine and implement the safe stop procedure**

1. Remove the left hand guard, then loosen the tie rod locking nut (a) and fully slacken the tie rod adjuster (b).
2. Loosen the locking nut (c) and turn the gearbox adjuster rod (d) anti-clockwise. This will pivot the gearbox forward, slackening the belt.
3. Remove the belt (f) and fit the new belt.
4. Tension the belt and adjust the tie rod according to Section 9.4.1.

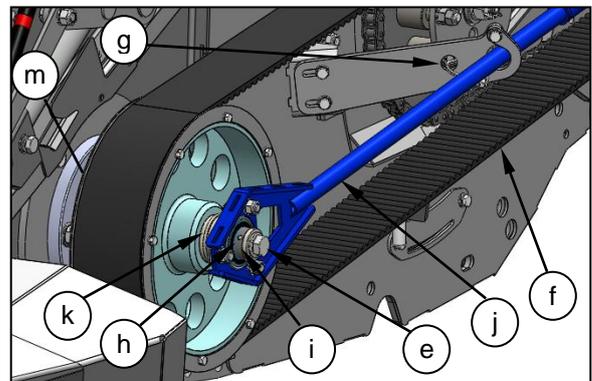
5.  **Replace all guards**

9.4.3 Changing the rotor speeds – HTD drive

The rotor speed is altered as follows by changing the pulley size ratios. This may require changing either the rotor or gearbox pulley, or both.

Stop the machine and implement the safe stop procedure

1. Disconnect the PTO shaft from the combine and remove the left hand drive guard.
2. Slacken the pulley securing bolts (e) as required. Only slacken according to the pulley being changed.
3. Loosen the tie rod locking nut (a) and fully slacken the tie rod adjuster (b).
4. Loosen the lock nut (c), and then turn the threaded adjuster (d) anti-clockwise. This will rotate the gearbox forward and slacken the belt. Remove the belt (f).
5. Remove the D pin (g) so the tie rod can be released. Remove the required pulley securing bolts (e) and associated washers. Then slacken the grub screw (h) securing the tie rod bearing (i).
6. Remove the tie rod bearing (i) and tie rod (j) from either, or both of the shafts and remove the washers and tapered collar (k). This may require a light tap with a hammer.
7. Remove the required pulley. Ensure that the inner tapered collar (m) and shims are left on the shaft and not removed with the pulley.
8. Fit the correct pulleys in order to get the desired speed.
9. Refit the tapered collars (k), washer, tie rod (j) and bolts (e) to both the rotor and gearbox pulleys. Ensure the tie rod retainer is refitted and secured with the D pin (g).
10. Refit the belt (f) and lightly tension, then reconnect the PTO shaft to the combine.
11. Fully tighten the pulley securing bolts (e) and tighten the tie rod bearing grub screws (h). Tension drive belt and adjust tie rod as described in Section 9.4.1.
12.  Refit all guards



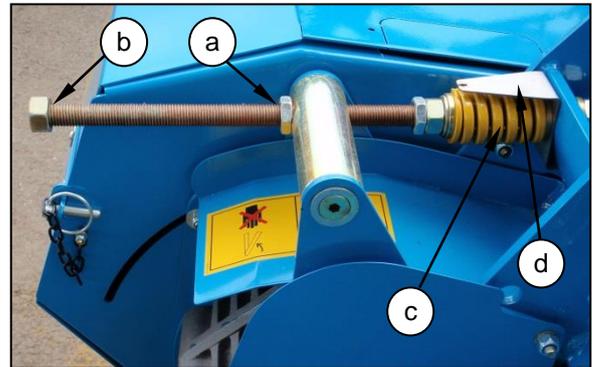
9.4.4 Tensioning the drive belt – Vee belt drive

The tension of the Vee belts is adjusted by pivoting the gearbox and compressing the spring. The belts should be tensioned so that the spring is compressed to the same length as the tensioner guide.

To adjust the belt tension.

⚠ Stop the machine and implement the safe stop procedure

1. Loosen the lock nut (a), then turn the threaded adjuster rod (b) to adjust the belt. This will cause the gearbox to pivot and move the input pulley.
2. The belt should be tensioned until the yellow spring (c) is compressed to the length of the tensioner guide (d). The spring should measure 83mm (3 ¼”).



⚠ Do not over tension the belts as this can damage the drive system

3. Tighten the lock nut (a) once the required spring length has been achieved.
4. If problems are encountered with belt slip contact your Shelbourne dealer.
5. **⚠ Replace all guards**

9.4.5 Changing the belt – Vee belt drive

To change the belt.

⚠ Stop the machine and implement the safe stop procedure

1. Loosen the locking nut (a) and turn the gearbox adjuster rod (b) anti-clockwise. This will pivot the gearbox forward, slackening the belts.
2. Remove the belts (f) and fit the new belts.

Always fit complete sets of four new belts

3. Tension the belts according to Section 9.4.4.

9.4.6 Changing the rotor speeds – Vee belt drive

The rotor speed is altered as follows by changing the pulley size ratios. This may require changing either the rotor or gearbox pulley or both.

⚠ Stop the machine and implement the safe stop procedure

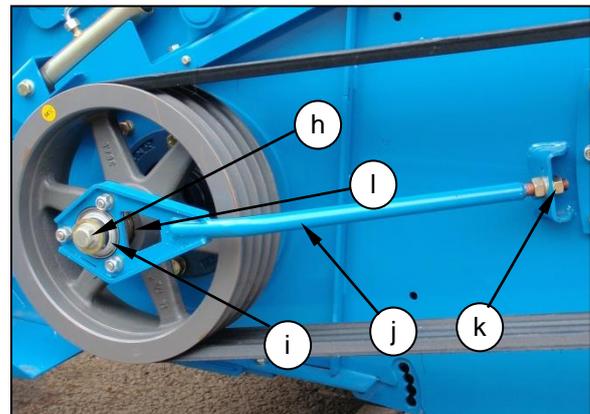
1. Disconnect the PTO shaft from the combine and remove the large left hand drive guard.
2. Slacken the rotor and gearbox pulley securing bolts (e & h), as required. Only slacken according to the pulley being changed.
3. Loosen the lock nut (a), and then turn the threaded adjuster (b) anti-clockwise. This will rotate the gearbox forward and slacken the belts. Remove the belts (f).

4. To remove the input pulley remove the bolt (e), associated washers and tapered collar (g). This may require a light tap with a hammer. Remove the pulley, ensure that the inner tapered collar is left on the shaft and not removed.



5. If the desired speed is obtainable by swapping the input pulley then change the pulley and reassemble.

6. The rotor pulley is removed by removing the bolt (h) and associated washer, then loosening the grub screws in the tie rod bearing (i). The tie rod (j) can then be removed by slackening and removing the nut (k).



7. Remove the washers and tapered collars (l), remove the pulley, ensure that the inner tapered collar is left on the shaft and not removed. Fit the correct pulley order to get the desired speed.

8. Refit the tapered collar (g & l), washer, tie rod (j) and bolts (e & h) to both the rotor and input pulleys.

9. Refit the belts (f) and lightly tension. When the 14 1/2" and 13 1/4" pulleys are fitted the belts will need to be rolled on. Ensuring that the gearbox is pivoted all the way forward should aid the fitting of the belts.

10. Reconnect the PTO shaft to the combine and fully the tighten pulley securing bolts (e & h) and tie rod bearing grub screws (i).

11.  **Refit all guards**

12. Re-tension the drive belts as described in Section 9.4.4.

9.5 STRIPPING ROTOR



Refer to Section 2.14 before working in or inspecting the stripping rotor

9.5.1 Stripping elements

The stainless steel seed saver stripping elements and plastic backing fingers are sectioned into 600mm (24") lengths, and secured with four bolts to allow replacement of individual sections. The stainless steel element can be fitted with the formed cups pointing upwards (aggressive), for tougher stripping crops, or with the formed cups pointing downwards (non-aggressive), for easier stripping crops.

9.5.2 Stripping element wear

After typical use, particularly in short crops, some of the individual stainless steel seed saver fingers may be bent. In order to ensure the efficiency of the stripping rotor it is advisable to inspect daily and straighten any bent fingers.

The plastic backing fingers have a memory and will return to their original shape after deflection; however if they are damaged or remain deflected they will need to be replaced.

If a single finger breaks off a section of a stripping element, the other fingers on the other rows around the rotor will compensate for it and stripping will still be just as efficient. If a few fingers break off in the same area around or along the rotor, then these stripping element sections should be replaced.

After a period of time the stainless steel seed saver will begin to show signs of wear. The rate of wear will vary according to crop type, soil type, crop conditions, rotor speed and many other factors. The wear will typically occur in the bottom of the keyhole or at the tip of the finger at the folded up flange. At a certain point the wear will be detrimental to the stripping rotor efficiency and will need to be replaced.

Contact your Shelbourne dealer for advice on stripping element wear.

All rows of elements do not have to be replaced at the same time. However, it is important that at least four opposing rows have good shaped elements for effective stripping. The selected rows must be opposite each other to keep the rotor in balance.

9.5.3 Replacing stripping elements



Stop the machine and implement the safe stop procedure



If the machine is on the combine, fully raise the Stripper Header and engage the combine's feeder house cylinder lock

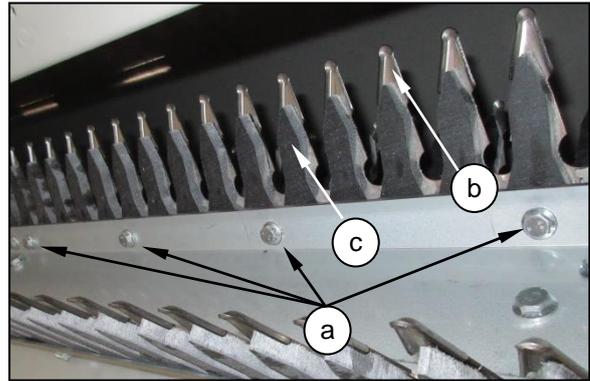


Raise the crop deflector and engage the safety stop

Remove the four bolts (a) securing the element (b) and backing finger (c), and pull from the rotor. Each section can be clearly seen by the joints.

NOTE: Remove and replace no more than two elements from the rotor at a time, tightening as they are changed, to prevent holes becoming misaligned and the rotor becoming out of balance.

It may be necessary to slacken the end bolt of the neighbouring elements to ease element removal.



Place the new section in position, ensuring formed cups are pointing in the correct direction. If it is difficult to push into the rotor, it may be tapped into place with a small bar in the bottom of the keyhole.

If the plastic backing fingers are not being replaced, these should be flipped over when fitting the new stainless steel elements.

Replace the four bolts.

NOTE: Locking bolts must be used to secure the element sections.

Do not remove the rotors from the header without consulting your dealer.

9.5.4 Centre finger adjustment

At adjoining rotor ends there is a short single adjustable stripping finger. If grain is being left unstripped in line with the rotor joints only, then the single finger may need adjusting.



Stop the machine and implement the safe stop procedure

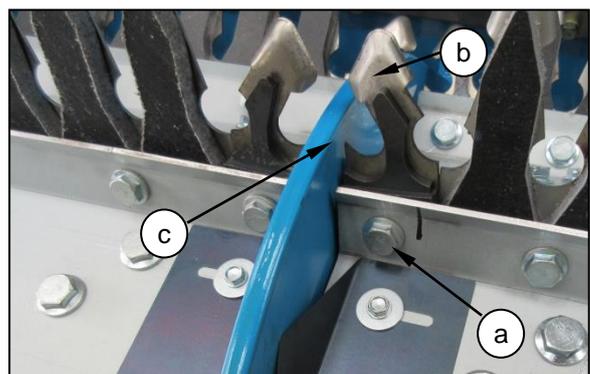


Fully raise the Stripper Header and engage the combine's feeder house cylinder lock



Raise the crop deflector and engage the safety stop

1. Disconnect the PTO shaft from the combine.
2. Slightly loosen the bolt (a), move the single finger (b) so that it is just clear of the division plate (c).
3. Tighten the bolt (a) and spin the rotor a complete revolution, to check that the single finger (b) does not rub the division plate (c).
4. If the finger rubs repeat steps 2 & 3, but with a slightly larger gap between the finger and the division plate.



- Repeat this process on all the other short single stripping fingers, ensuring that they do not rub the division plate.

NOTE: Ensure all bolts are fully tightened.

9.5.5 Anti-wrap plates

Both ends of each rotor are fitted with spring anti-wrap plates on alternate panels around the rotor, to help to prevent the crop entering and wrapping in the rotor ends.

The spring anti-wrap plates are pre-set at the factory. If further adjustment is required, follow the procedure below.



Stop the machine and implement the safe stop procedure

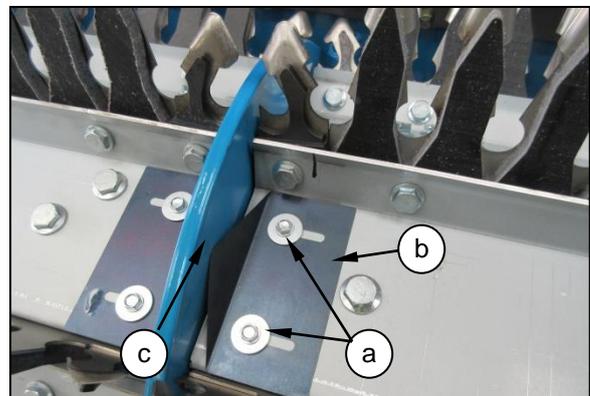


Fully raise the Stripper Header and engage the combine's feeder house cylinder lock



Raise the crop deflector and engage the safety stop

- Slightly loosen the two screws (a) securing the anti-wrap plate (b).
- Slide the anti-wrap plate until the tip just touches the side plate or division plate (c).
- Slide the anti-wrap plate in a further 2mm ($\frac{1}{16}$ "), to apply slight spring pressure.
- Tighten the two securing screws (a).
- Repeat steps 1-4 for the other anti-wrap plates.



9.6 GAUGE WHEELS

9.6.1 Tyre pressure

To ensure maximum tyre life, it is advisable to check the tyre pressure every two weeks. Before checking or adjusting tyre pressures;



Fully lower the Stripper Header to the ground



Stop the machine and implement the safe stop procedure

If the machine has not been used for a long period check the tyre pressures before putting the machine back into operation. Ensure there are dust caps on the valves. Check the wheel and tyre for signs of wear and damage.

The tyre inflation pressure should be 3.9 bar (57 psi).

9.6.2 Wheel nuts

It is advisable that the wheel nut tightness is checked after the first day of use and subsequently every two weeks. Before checking wheel nut tightness:

 **Fully lower the Stripper Header to the ground**

 **Stop the machine and implement the safe stop procedure**

Check tightness every time the wheels are removed.

The wheel nut torque should be 210 Nm (155lb/ft) and tightened in a diagonal pattern.

9.7 RECOMMENDED TORQUES FOR FASTENERS

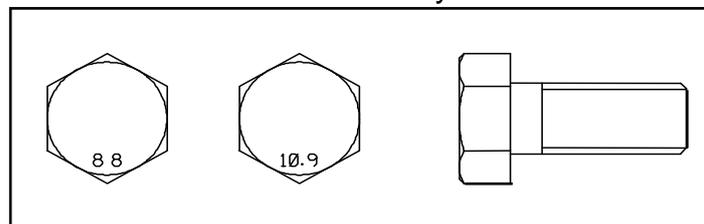
The table shown below gives correct torque values for various fasteners.

- Tighten all fasteners to the torques specified in the chart unless otherwise stated in this manual.
- Check tightness of fasteners periodically, using the torque chart as a guide.
- Replace hardware with the same strength fastener.
- Torque figures are valid for non-greased or oiled threads and heads unless otherwise specified. Do not grease or oil fasteners unless specified in this manual. When using locking elements, increase torque values by 5%.

METRIC FASTENERS (COARSE / STANDARD THREAD)

THREAD DIAMETER.	WRENCH SIZE (mm)	BOLT TORQUE / GRADE*			
		8.8		10.9	
		Nm	lb/ft	Nm	lb/ft
M5	8	6	4	9	7
M6	10	10	7	15	11
M8	13	25	18	35	26
M10	17	50	37	70	52
M12	19	90	66	125	92
M16	24	225	166	310	229
M20	30	435	321	610	450
M24	36	750	553	1050	774

*Torque categories for fasteners are identified by their head markings.



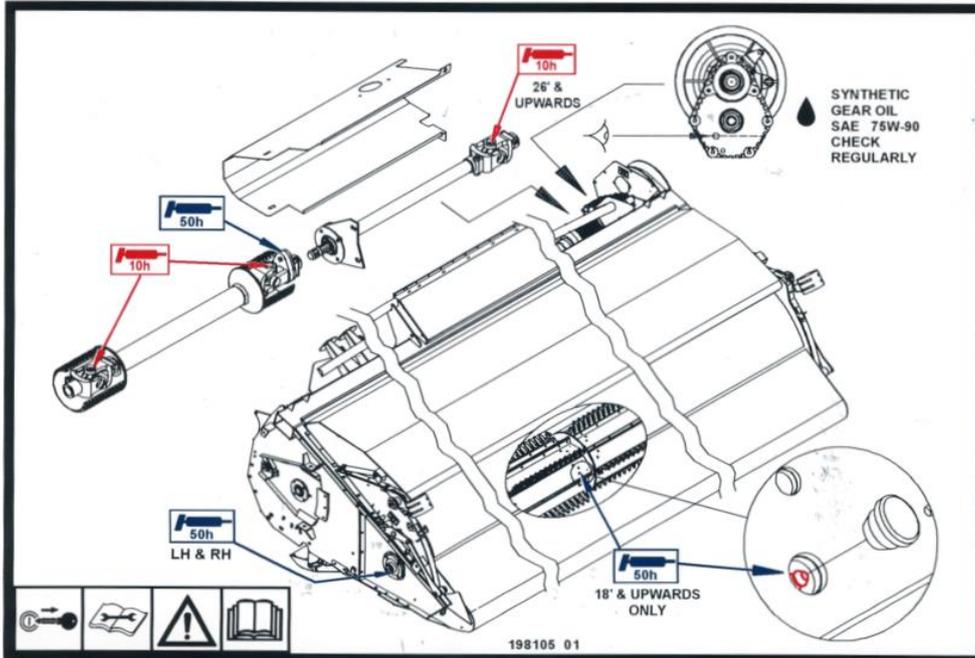
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SECTION 10

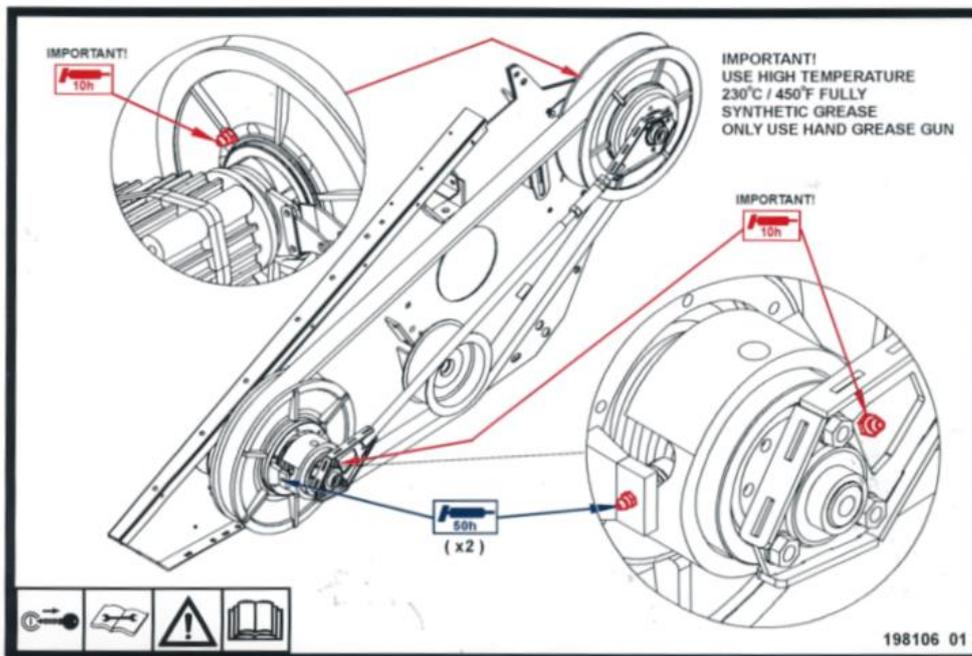
LUBRICATION

 Refer to Section 2.14 for accident prevention information

All Stripper Headers are supplied with a lubrication decal which is located on the rear left hand side of the Stripper Header main frame. This decal displays the common grease points and gearbox oil information.



An additional decal is fitted to XCV machines that indicates the grease points on the variable speed drive pulleys and is located under the left hand drive guard.



10.1 AUGER DRIVE CHAIN



Stop the machine and implement the safe stop procedure

The auger drive chain should be lubricated daily. Remove the left hand drive guard and use an aerosol chain lubricant or SAE 90 gear oil. Take care not to get lubricant on the rotor drive belt or pulleys.



Refit all guards

10.2 PIVOT POINTS

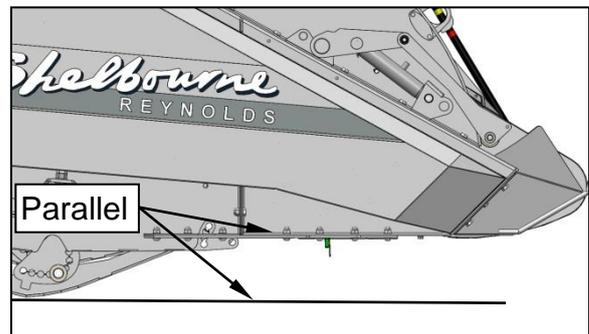
All pivot points which may become stiff from corrosion should be occasionally oiled.

10.3 INPUT GEARBOX



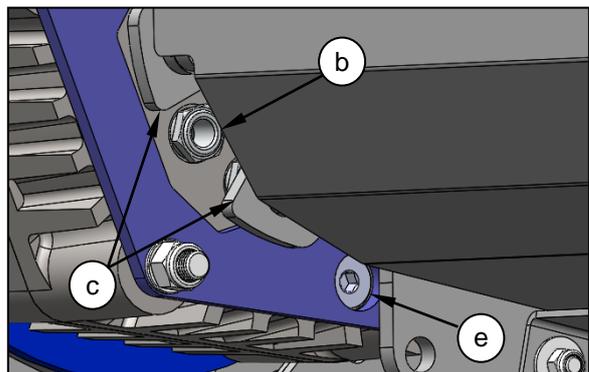
Stop the machine and implement the safe stop procedure

Check the gearbox oil level daily. Check the oil with the Stripper Header lowered near to the ground with the machine side plate parallel to the ground. In this position the sight glass should be at least half covered in oil. If no oil is visible fill until the sight glass is just covered.



View the oil level in the sight glass (b) that is most visible though the viewing area (c).

To add oil to the gearbox remove the breather filler cap (d) and pour oil through the filler hole. Once the required amount of oil has been added refit the breather filler cap.



NOTE: Only use fully synthetic gear oil, grade SAE 75W-90.

Brands of oil recommended are:

Total SYN FE 75W90
BP Energear SHX SAE 75W-90
Mobilube SHC SAE 75W-90.

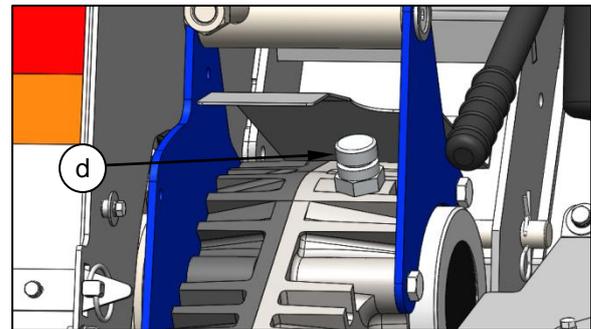
Shelbourne oil part number is OIL-0005A.

Input Gearbox Capacity	Litres	Pints	Gallons	Quart
	0.95	1.67 UK 2.00 USA	0.21 UK 0.25 USA	0.84 UK 1.00 USA

After the first 20 hours of use the oil should be drained from the gearbox and replaced with the recommended type. Oil should then be changed annually at the start of the harvesting season.

It is recommended to drain the oil from the gearbox when the oil is still warm as it will drain more easily.

Adjust the Stripper Header height so that the drain plug (e) is in its lowest position. The gearbox may need to be pivoted in order to access the drain plug. Refer to Sections 9.3.1, 9.4.1 and 9.4.4 for the procedure on pivoting the gearbox and adjusting the belt.



Remove the breather filler cap (d) and then remove the drain plug (e) and drain the oil into a suitable container. Dispose of the oil correctly and safely.

Check the magnetic drain plug (e) for signs of metal filings; if excessive filings are found consult your Shelbourne dealer.

Refit and tighten the drain plug (e), then add the specified amount of the recommended oil. Refit the breather filler cap (d).

If the gearbox has been adjusted, readjust the belt, as described in Sections 9.3.1, 9.4.1 or 9.4.4.

10.4 GREASING

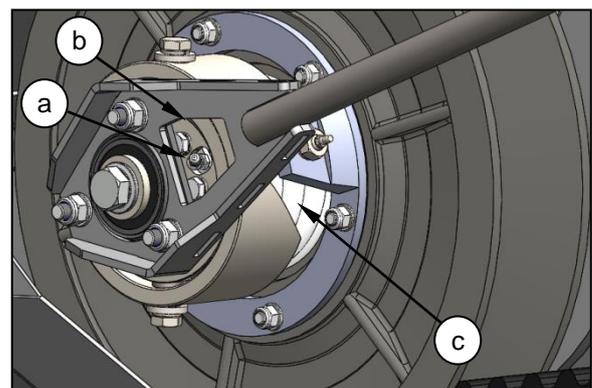
There are a number of grease points that require regular lubrication. These are also displayed on the maintenance sticker on the rear of the Stripper Header.

10.4.1 Ten hour greasing

Grease the following points at 10 hour intervals:

 **Stop the machine and implement the safe stop procedure**

1. Rotor variable speed pulley sheaves. (XCV Only).

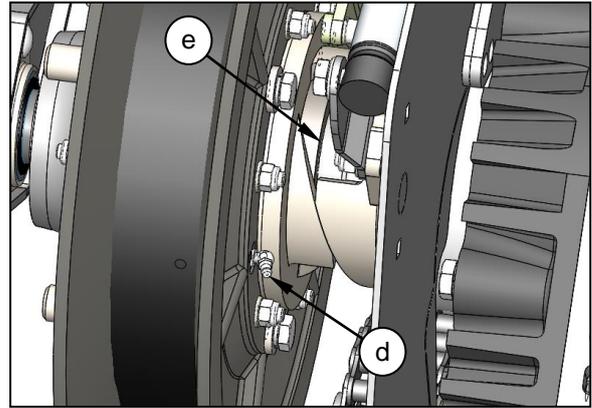


Remove the left hand drive guard and rotate the pulley until the grease point (a) is aligned with the hole in the tie rod (b). Grease the rotor pulley until fresh grease is expelled through the breather hole into the spring area (c).

2. Gearbox variable speed pulley sheaves (XCV Only).

Rotate the pulley until the grease point (d) is accessible from the rear. Grease the gearbox pulley until fresh grease is expelled into the cam area (e).

 **Refit all guards**



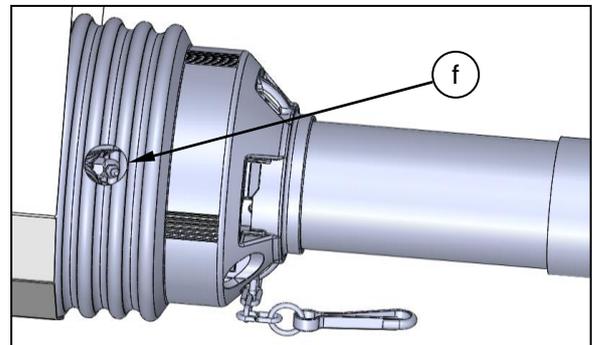
NOTE: After every greasing operate the variable speed drive through the complete speed range in order to distribute the grease.

NOTE: Only use hand grease guns.

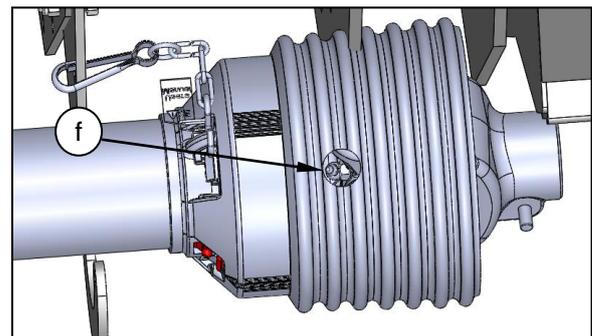
NOTE: Only use high temperature (230°C / 450°F) fully synthetic grease on the variable speed pulley sheaves. Consult your Shelbourne dealer for grease details.

3. Drive line, universal joints.

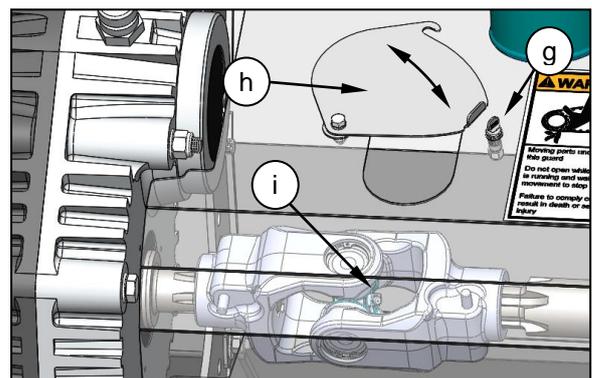
Grease the universal joint at each end of the PTO shaft through the opening in the guard (f) in accordance with the PTO manufacturer's instructions.



Turn the fastener (g) and open the rear guard inspection cover (h). Rotate the driveline until the grease (i) point is accessible through the inspection hole. Once this has been greased close the inspection cover (h) and secure with fastener (g).



 **Refit all guards**



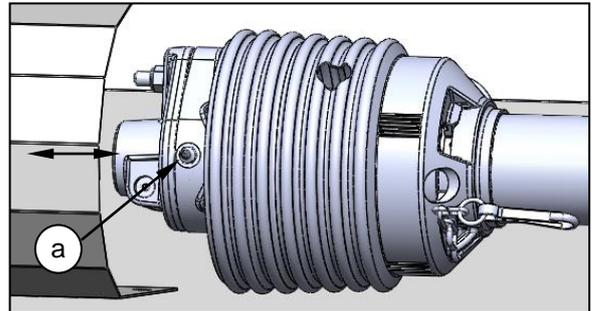
10.4.2 Fifty hour greasing

Grease the following at 50 hour intervals:

 **Stop the machine and implement the safe stop procedure**

1. Shearbolt clutch.

Grease the shearbolt clutch grease point (a) at the machine end of the PTO shaft in accordance with the PTO manufacturer's instructions. To do this it may be necessary to disconnect the PTO shaft from the Stripper Header or remove the guard. See Section 8.6 for instruction, in accordance with the PTO manufacturer's instructions.

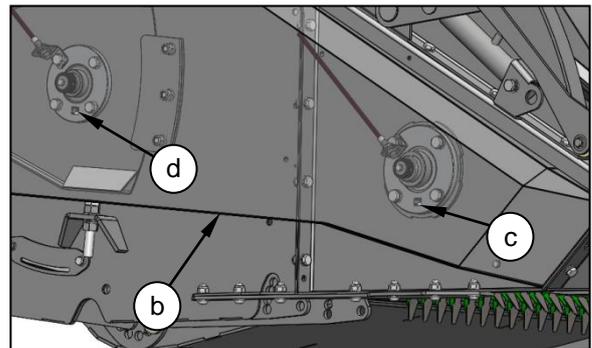


Refit the PTO shaft.

 **Refit all guards**

2. Right hand end rotor bearing.

Grease the bearing from the underside of the right hand guard (b). The grease point (c) is at the bottom of the bearing.

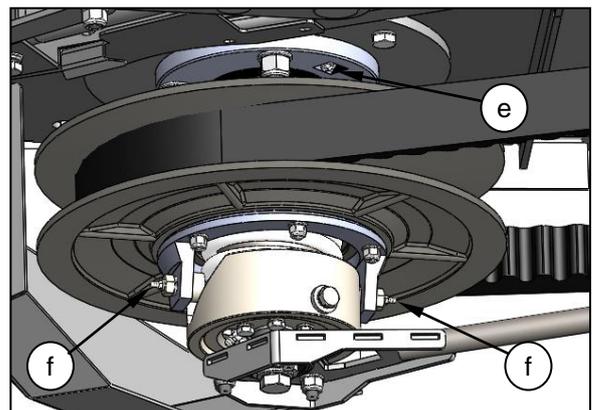


3. Right hand end auger bearing.

Grease the bearing from the underside of the right hand guard (b). The grease point (d) is at the bottom of the bearing.

4. Left hand end rotor bearing.

Remove the left hand drive guard. The grease point (e) is located on the bearing behind the rotor pulley and is angled towards the mainframe top beam.

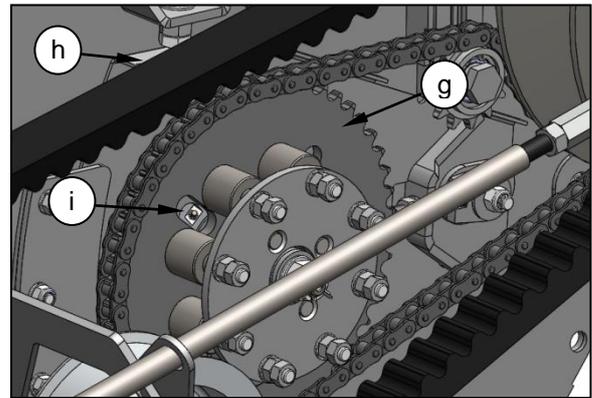


5. Cam follower bearings (XCV only).

The two cam follower bearings are located on the rotor variable speed pulley. Rotate the pulley until both grease points (f) are accessible.

6. Left hand end auger bearing
(Where grease facility is fitted).

The left hand auger bearing is located behind the auger clutch (g). Rotate the auger clutch by turning the drive belt (h) until one of the access holes lines up with the grease point on the bearing (i).



 **Refit all guards**

7. Auger centre ball coupling. (36' & 42' models only)

The auger centre grease point is located on the left hand end of the right hand auger tube. This grease point can be accessed either by raising the hood or through the adaptor plate opening when the header is removed from the combine.

If accessing through the hood

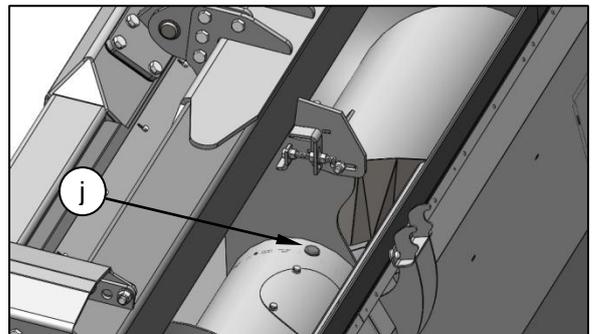
 **Fully lower the Stripper Header to the ground**

 **Stop the machine and implement the safe stop procedure**

Raise the hood.

 **Use the hood ram stop**

Turn the auger until the grease hole plug (j) is visible. Remove the plug and grease the ball coupling liberally. Refit the grease hole plug.



Lower and secure the hood.

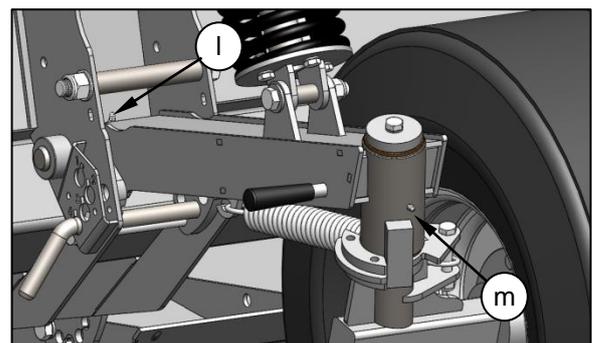
8. Gauge wheel pivots

 **Fully raise the Stripper Header and engage the combine's feeder house cylinder lock**

 **Stop the machine and implement the safe stop procedure**

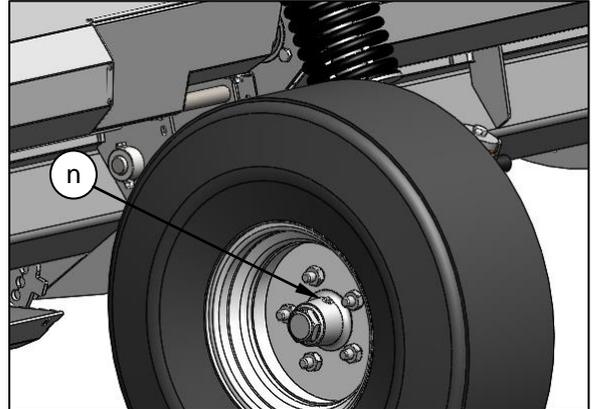
The two pivot points on each gauge wheel arm require greasing.

The grease points (l & m) are located on each end of the gauge wheel arm. Grease both the left hand and right hand gauge wheel arms.



9. Gauge wheel axle hub bearing.

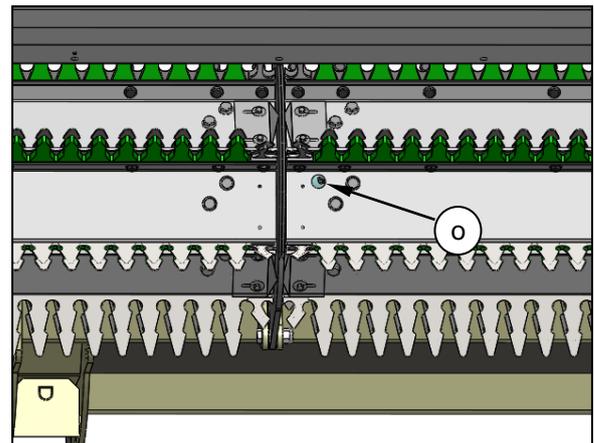
Locate and grease the grease point (n) on the outside of both axle hubs.



10. Rotor ball coupling

-  **Fully raise the Stripper Header and engage the combine's feeder house cylinder lock**
-  **Raise the crop deflector and engage the safety stop**
-  **Stop the machine and implement the safe stop procedure**

The grease points are located on the right hand end of the left hand stripping rotor and the left hand end of the right hand rotor. Turn the stripping rotor until the grease hole plug (o) is visible. Remove the plug and grease the ball coupling liberally. Repeat for the other ball coupling.



Refit the grease hole plug.

10.5 HYDRAULIC HAND PUMP

The hydraulic hand pump (used for raising and lowering the top hood) is located at the rear left hand side of the Stripper Header.

 **Stop the machine and implement the safe stop procedure**

The oil reservoir will occasionally need topping up with oil. When filling the reservoir ensure that the top hood is fully lowered, remove the red oil filler cap (a) and fill through the filler hole.

Refit the oil filler cap.



Hand Pump Capacity	Litres	Pints	Gallons	Quart
	1.00	1.76 UK 2.11 USA	0.22 UK 0.26 USA	0.88 UK 1.06 USA

Use 46W hydraulic oil, TOTAL EQUIVIS ZS 46 or equivalent.

The procedure below should be followed prior to off-season storage of your Stripper Header, to preserve and protect your machine.



Refer to Section 2.14 for accident prevention information

1. If removing the Stripper Header from the combine, support on a trailer, or on firm level ground using the header stands. Raise the gauge wheels.
2. On XCV machines slow the rotor speed to minimum to reduce the belt tension; see Section 8.1.4.



Stop the machine and implement the safe stop procedure



Fully raise the Stripper Header and engage the combine's feeder house cylinder lock or lower the Stripper Header to the ground

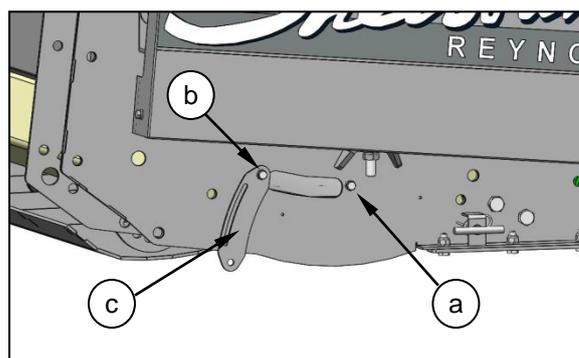


Raise the crop deflector and engage the safety stop

3. Thoroughly clean the interior and exterior of the header, as any chaff, straw, grain and dirt left on the machine will draw moisture and cause corrosion as well as attract rodents.

In order to fully clean the auger trough the cover plates can be opened at each end of the header.

To do this remove one securing bolt (a) and slacken the other securing bolt (b), allowing the cover plate (c) to swing down. Refit the securing bolt (a).



Ensure the cover plates are refitted after cleaning.

4. Clean and lubricate the auger drive chain.
5. Dismantle the auger slip clutch, inspect and clean before reassembly. It may be necessary to replace the auger clutch plates; see Section 9.1. When reassembling, leave the springs slack for storage.
6. On XCS machines pivot the gearbox fully forward to remove the tension from the belts; see Section 9.4.
7. Lubricate the machine thoroughly as described in the lubrication section of this manual; see Section 10.

8. Coat all the bright parts with paint or anti-rust preservative to protect them.

NOTE: Do not put oil, paint, preservative, etc. on the plastic backing fingers as it may damage them.

9. Fully lower the crop deflector.

10. Store the header in a dry place protected from the weather and rodents. Both ends of the top beam (d) may need to be blocked up to deter rodents and prevent them from damaging the wires located within the beam.

