

MacDon®



Any Crop. Any Condition. Any Combine.

FD75 FlexDraper®

Draper Clinic Handout

The Harvesting Specialists. MacDon.com

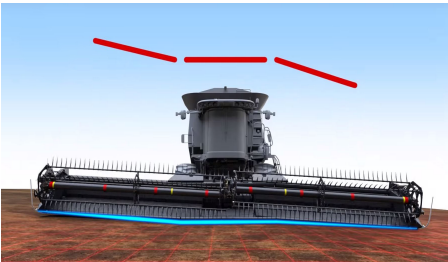
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Flex vs Float – When to Lock and Unlock

Flex



Refers to Flexing of the 3 Piece Header Frame

- Always **Lock for Road Transport.** 
- Can be Either Locked or Unlocked in the Field.
- 2 Latches - Each Wing Locks Independently.
- Each Wing Flexes Independently.
- Reel Flexes with Cutterbar to Maintain Close Consistent Relationship With Knife.

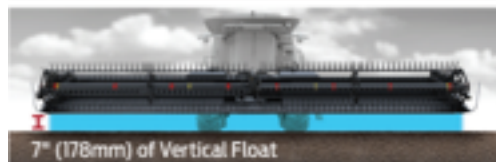
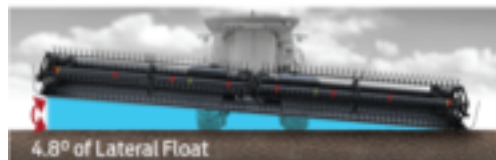


Float

Refers to Separation (or Float) Between Adapter and Header

- Always **Lock for Road Transport.** 
- Always **Unlock in the Field.** 
- 2 Latches to Lock/Unlock – One on Each side of Adapter
- When Properly Set, Header Floats off of Adapter to Lightly Follow Terrain.

HEADER SIZE	LATERAL FLOAT (@ 4.8°)
30' (9.1 m)	16" (411 mm)
35' (10.6 m)	20" (505 mm)
40' (12.2 m)	21.5" (549 mm)
45' (13.7 m)	24" (617 mm)



Please Refer to Maintenance and Servicing Section of Operators Manual

At 5 minutes

Check Reservoir Hydraulic Fluid on Combine Adapter

Check fluid level every 25 hours with cutterbar just touching the ground. Check when oil is cold and with center link fully retracted. At ambient temperatures above 95°F (35°C) it may be necessary to lower oil level slightly to prevent overflow. CA20 and CA25 combine adapters use 15w – 40 engine oil in this reservoir. For other models please refer to your operators manual to find the correct fluid requirements for your specific equipment.

Maintain oil level as indicated by (D) in figure 7.32

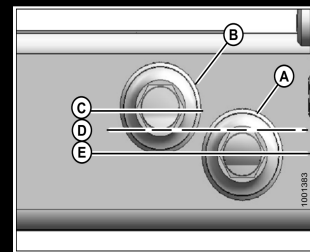


Figure 7.32: Oil Level Sights

At 5 hours

Check for Loose Hardware

Check for loose hardware and tighten to required torque. Refer to torque specifications section of operators manual.

Check knife drive belt tension (single or untimed knife)

2. Loosen the two bolts (A) that secure the motor assembly to the header end sheet (see figure 7.103 at right).

3. Turn adjuster bolt (B) clockwise to move the drive motor until a force of 20 ft·lbf (80 N·m) deflects the belt 3/4 inches (18 mm) at mid-span.

To prolong belt life do not overtighten. Please refer to the maintenance and servicing section of your operators manual

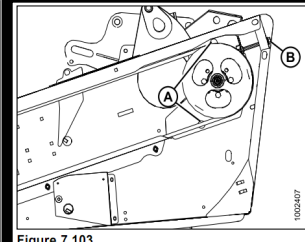


Figure 7.103

Check knife drive belt tension (timed double knifed)

1. Open end sheet.

2. Loosen the two bolts (A) on drive belt idler bracket (see figure 7.117 at right).

3. Position pry bar under idler bracket, and push bracket upwards until a force of 6 ft·lbf (27 N·m) deflects the timing belt 1/2 inch (13mm) at mid-span.

4. Tighten nuts (A) on idler mounting bracket.

5. Loosen bolts (B) and adjust guide (A) shown in figure 7.118 on right. The measurement should be 0.02-0.04 inches (0.5 – 1.0 mm).

6. Readjust tension of a new belt after a short run-in period (about 5 hours).

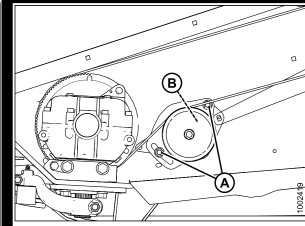


Figure 7.117

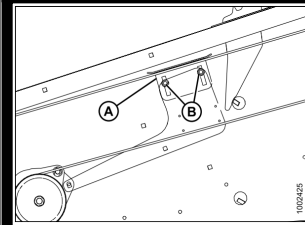
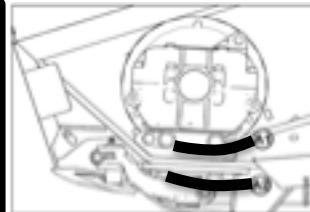


Figure 7.118

At 10 hours

Check knife drive box mounting bolts

Check the four knife drive box mounting bolts (A1, A2) torque after the first 10 hours operation and every 100 hours thereafter. Tighten knife drive box side bolts (A1) first, then the bottom bolts (A2). Torque to 200-ft lbs (271 N m).



Find your operators manual at: www.macdon.com/support/operators-manuals

Please Refer to Maintenance and Servicing Section of Operators Manual

At 50 hours

Change Hydraulic Oil Filter

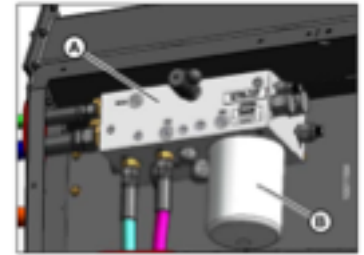
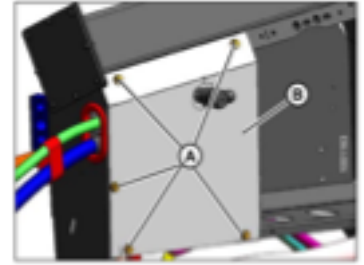
Change hydraulic oil filter (B) after first 50 hours of operation, and every 250 hours thereafter.

CA20 use filter part #151975

CA25 with Bosch hydraulic block use filter part #123989

CA25 with a Parker hydraulic block use filter part #151975

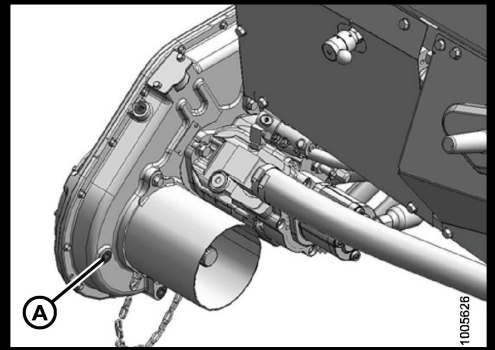
Please Refer to Maintenance and Servicing Section of Operators Manual



Change oil in knife drive gearbox(s) using 2.3 quarts (2.2 liters) of 85W-140 (API service class GL-5) oil.



Change oil in header drive gearbox using 2.6 quarts (2.5 liters) or 85W-140 (API service class GL-5) Oil.



Check and Adjust Tension on Gearbox Drive Chain

The chain inside the gearbox has been tensioned at the factory and requires no other maintenance other than to adjust the tension every 500 hours or annually. To adjust chain tension follow these steps:

1. Lower header, stop engine, and remove key.
2. Remove chain adjusting cover (A). Be sure gasket (B) is not damaged.
3. Remove retainer plate (C).
4. Tighten bolt (D) to 60 in lbf (6.8 N m) and then back off bolt by 1 and 2/3 turns.
5. Reinstall retainer plate (C).
6. Reinstall chain adjusting cover (A) and gasket (B). Torque hardware to 84 in lbf (9.5 N m).

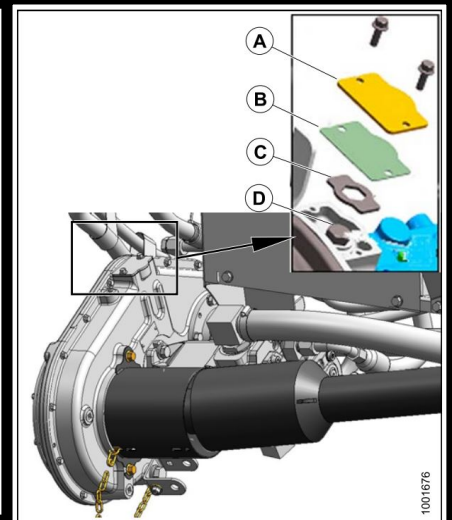


Figure 7.55

A - Cover
C - Retainer plate

B - Gasket
D - Bolt

Please Refer to Maintenance and Servicing Section of Operators Manual

Find your operators manual at: www.macdon.com/support/operators-manuals

Lubricant Specification

Lubricant	Specification	Description	Use	Capacities
Grease	SAE Multi-Purpose	High Temperature Extreme Pressure (EP2) Performance With 1% Max. Molybdenum Disulphide (NLGI Grade 2) Lithium Base	As Required Unless Otherwise Specified	-
		High Temperature Extreme Pressure (EP) Performance with 10% Max Molybdenum Disulphide (NLGI Grade 2) Lithium Base	Driveline Slip-Joints	-
Gear Lubricant	SAE 85W-140	API Service Class GL-5	Knife Drive Box	2.3 quarts (2.2 liters)
			Main Drive Gearbox	5 pints (2.5 liters)
Hydraulic Oil	SAE 15W-40	Compliant With SAE Specs For API Class SJ And CH-4 Engine Oil	Header Drive Systems Reservoir	16 US gallons (60 liters)

Greasing – Single Knife vs Double Knife & Flex Header vs Rigid Header

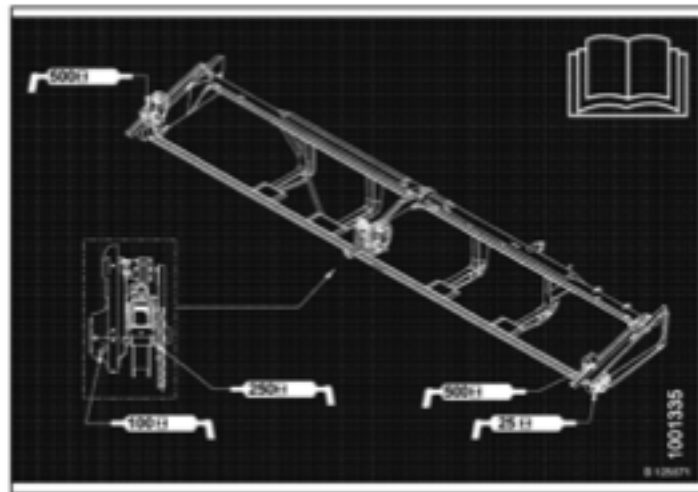


Figure 7.23 (above) – Single Knife or Untimed Double Knife

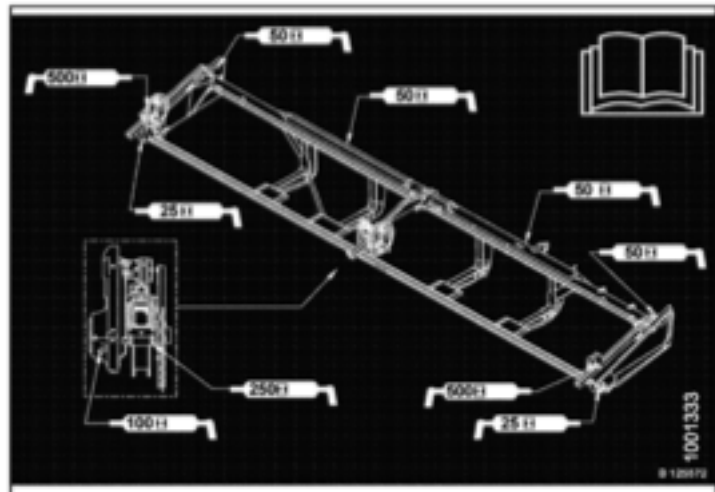


Figure 7.24 (above) – Timed Double Knife Header

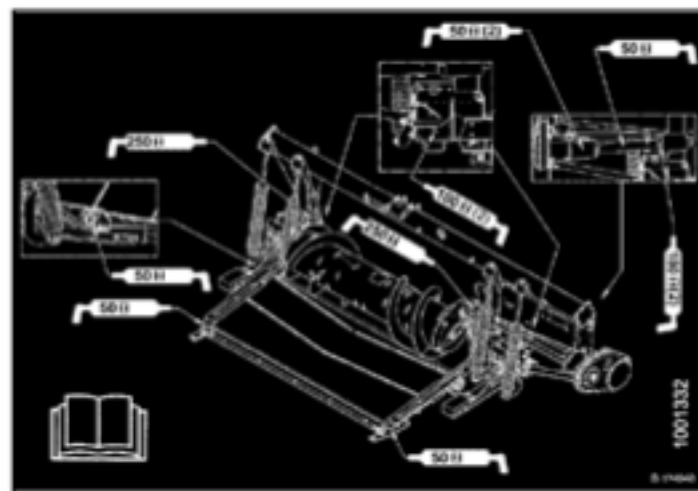


Figure 7.25 (above) – Adapter

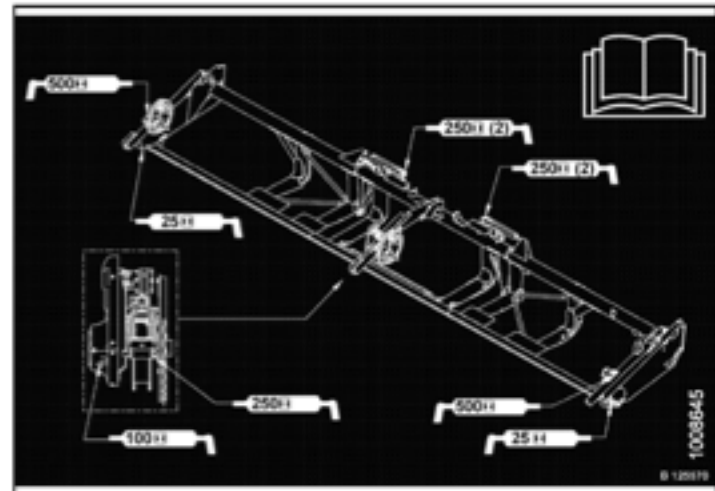


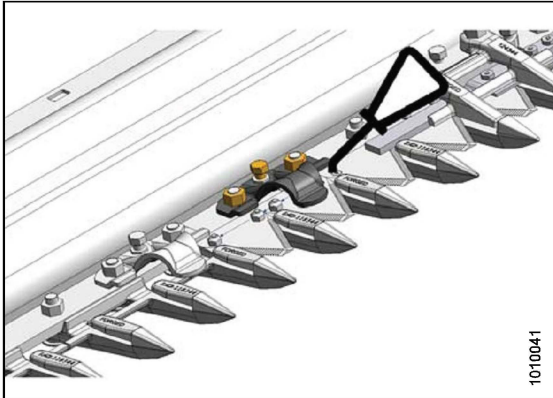
Figure 7.28 (above) – FD75 Flex Header

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Please Refer to Maintenance and Servicing Section of Operators Manual for Model Specific Maintenance

10 hours or daily

- Check and adjust knife hold downs
- Hold down clearance 0.004 - 0.024in. (0.1 - 0.6mm)



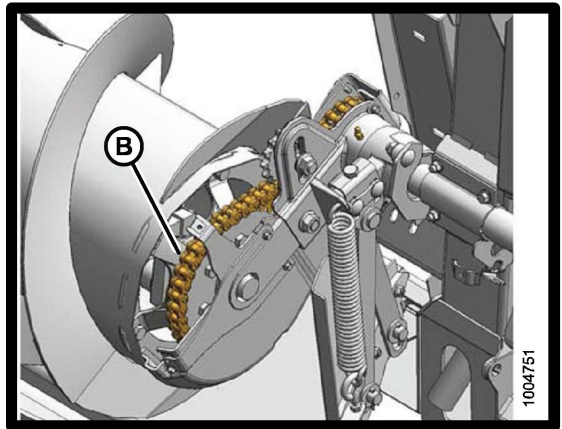
25 hours

- Grease knife head. 1-2 pumps every 25 hrs. **Do not over grease.**



During Break in Period

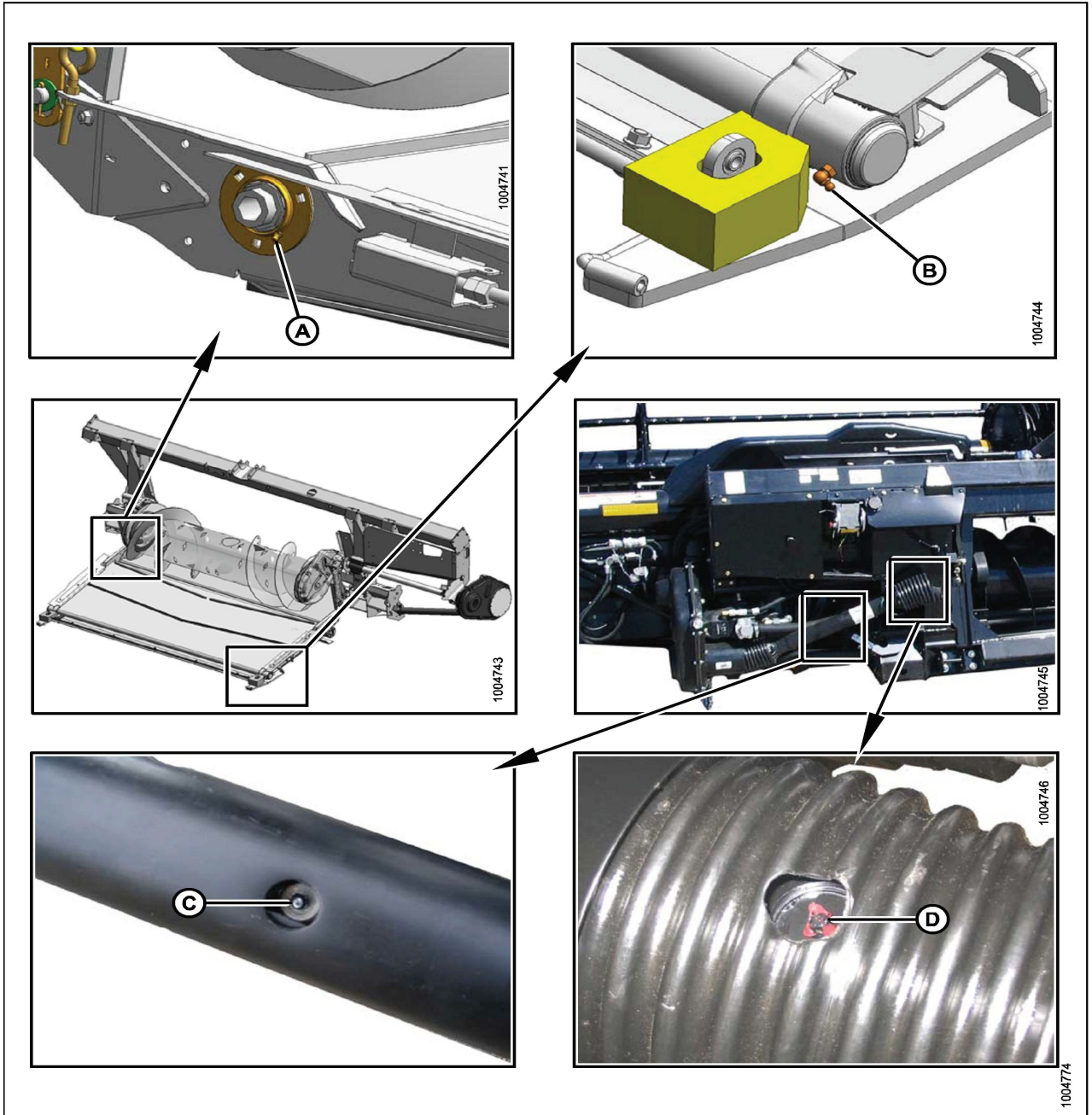
During the break in period, center drum drive chain (B) should be checked periodically every 10-50 hours and adjusted as the drive chain stretches.



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Please Refer to Maintenance and Servicing Section of Operators Manual for Model Specific Maintenance

Grease Drive Roller Bearing (A), Idler Roller – Both Sides (B), Driveline Slip Joint (C), Driveline Universal 2 PLCS (D)



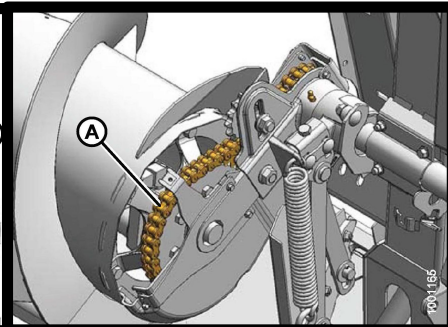
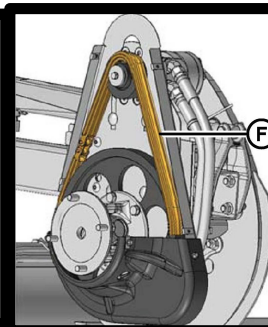
On timed double knife drive headers only: grease drive shaft in header back tube every 50 hours – Refer to operators manual or greasing decal on header frame for details.

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Please Refer to Maintenance and Servicing Section of Operators Manual for Model Specific Maintenance

100 Hours (Chains)

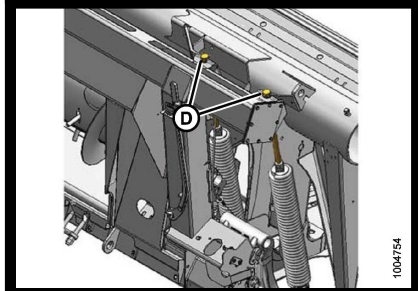
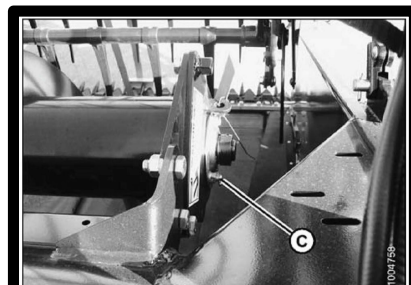
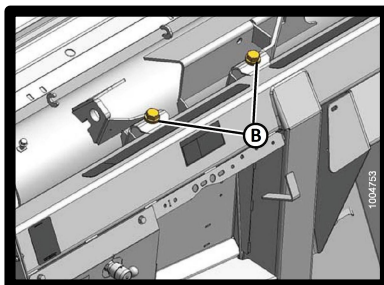
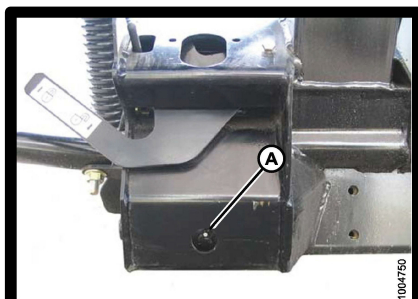
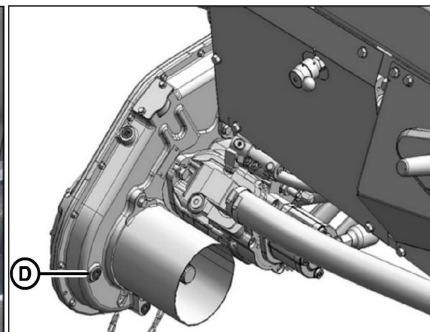
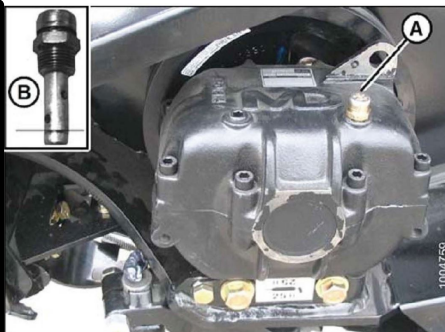
- Every 100 hours or less- check and adjust tension on rotating feed drum drive chain (A) and reel drive chain (F). Follow procedure in Maintenance and Service section of Operator's Manual to remove and replace chain covers. Liberally apply grease to both drive chains.



100 Hours (Check Fluids)

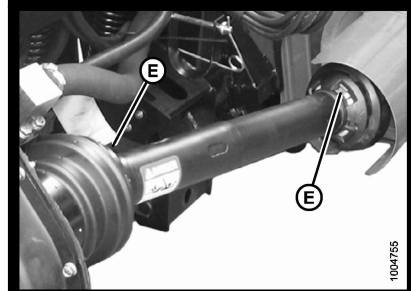
Remove plug (B) and check oil level in knife drive gearboxes (A).

Check oil level in main drive gearbox at location (D).



100 Hour (Greasing)

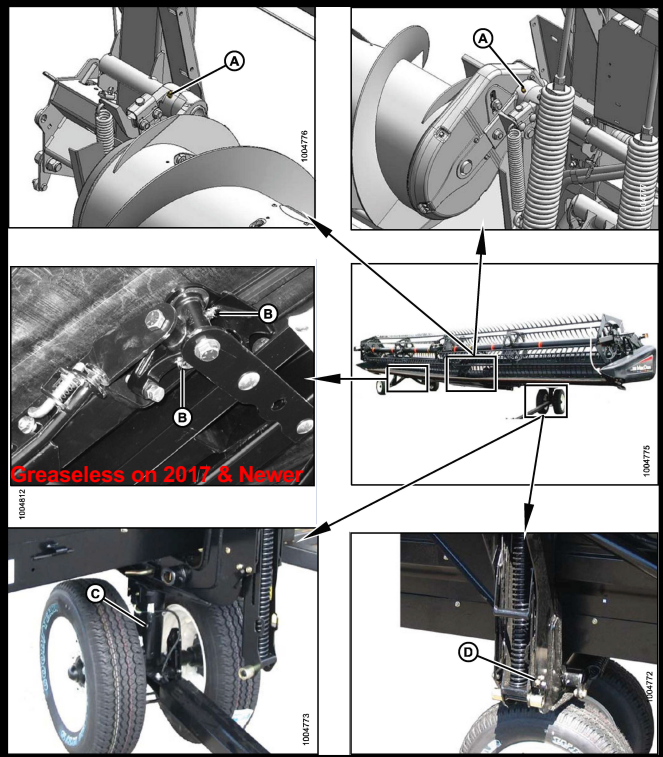
- A - Float Pivot- RH & LH
- B & D - Float Spring Tensioners (2 on each side)
- C - Upper Cross Auger - if equipped (1 Place)
- E- Driveline Guard (2 Places)



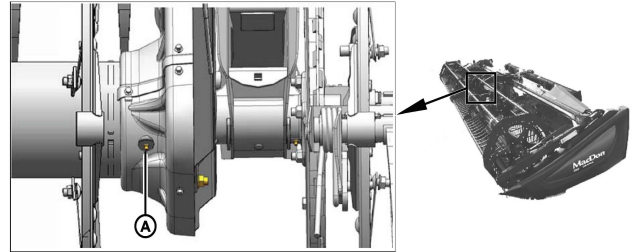
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Please Refer to Maintenance and Servicing Section of Operators Manual for Model Specific Maintenance

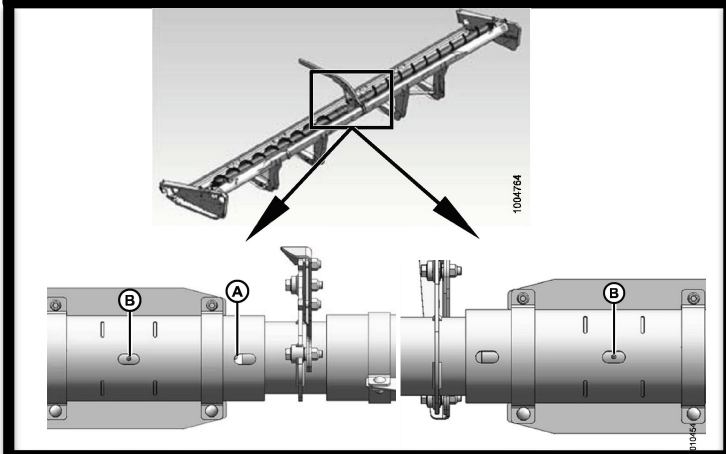
Grease auger pivots (A), right side wheel axle (B), left side wheel pivot (C), and frame wheel pivot (D). **Note:** Axle (B) is not greasable on 2017 and newer transports.



Grease Reel U-Joint (A) - Double reel only

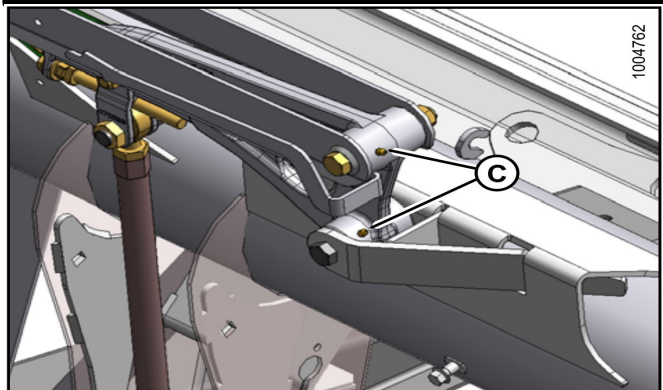


Grease upper cross auger U-joint bearings (A & B below)



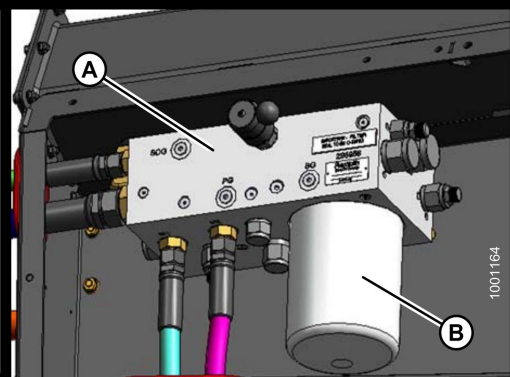
FD75 Only

- Grease wing flex linkages (C) every 250 hours (4 places)



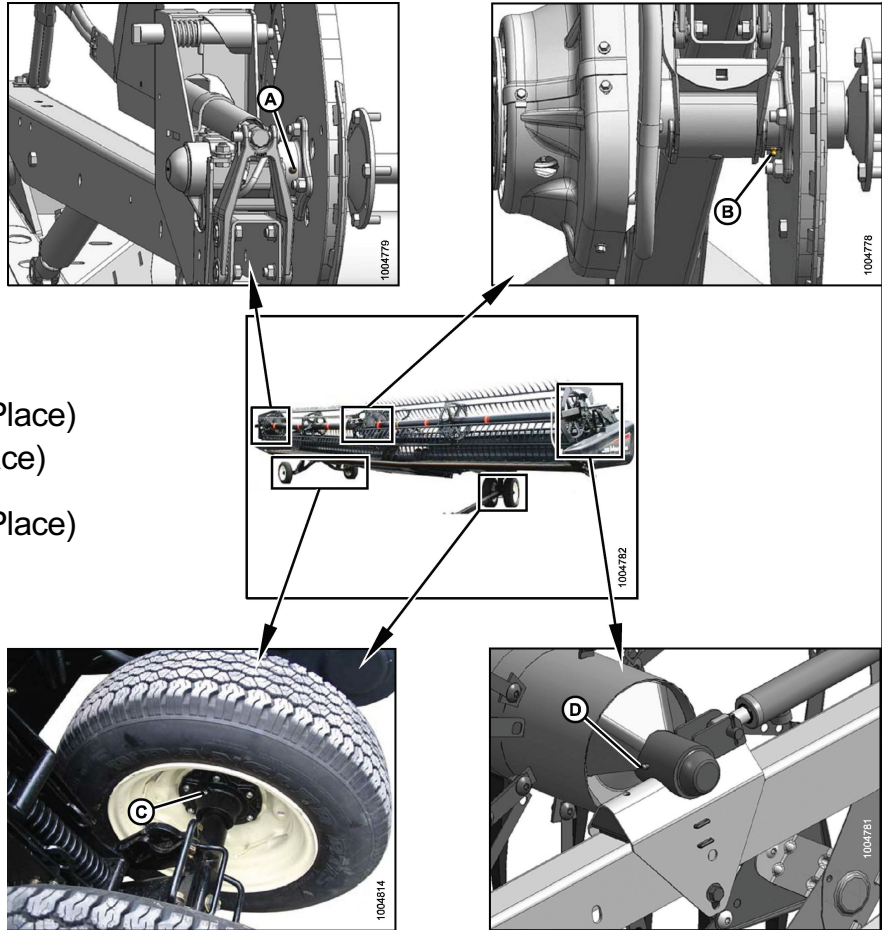
Change hydraulic oil filter (B) after first 50 hours and every 250 hours thereafter.

- CA20 uses filter part #151975
- CA25 with Bosch block uses part #123989
- CA25 with Parker block uses part #151975



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Please Refer to Maintenance and Servicing Section of Operators Manual for Model Specific Maintenance



Grease

- A- Reel Shaft RH bearing (1 Place)
- B- Reel Center Bearing (1 Place)
- C- Wheel Bearings (4 Places)
- D- Reel Shaft LH Bearing (1 Place)

Adjust Tension on Gearbox Drive Chain

The chain inside the gearbox has been tensioned at the factory and requires no other maintenance other than to adjust the tension every 500 hours or annually. To adjust chain tension follow these steps:

1. Lower header, stop engine, and remove key.
2. Remove chain adjusting cover (A). Be sure gasket (B) is not damaged.
3. Remove retainer plate (C).
4. Tighten bolt (D) to 60 in lbf (6.8 N m) and then back off bolt by 1 and 2/3 turns.
5. Reinstall retainer plate (C).
6. Reinstall chain adjusting cover (A) and gasket (B). Torque hardware to 84 in lbf (9.5 N m).

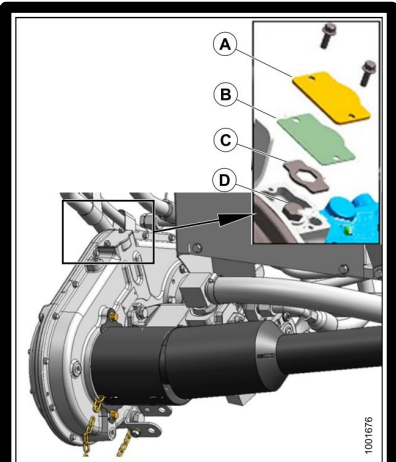


Figure 7.55

A - Cover
C - Retainer plate

B - Gasket
D - Bolt

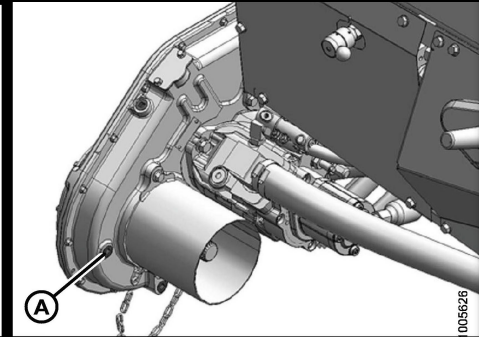
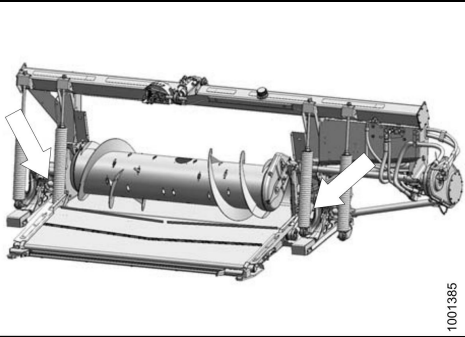
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Please Refer to Maintenance and Servicing Section of Operators Manual for Model Specific Maintenance

Change hydraulic oil in combine adapter frame using 16 US gallons (60 liters) of 15W-40 engine oil.

Change oil in knife drive gearbox(s) using 2.3 quarts (2.2 liters) of 85W-140 (API service class GL-5) oil.

Change oil in header drive gearbox using 2.6 quarts (2.5 liters) or 85W-140 (API service class GL-5) Oil.



End of Season Service

CAUTION: Never use gasoline, naphtha or any volatile material for cleaning purposes. These materials may be toxic and/or flammable.

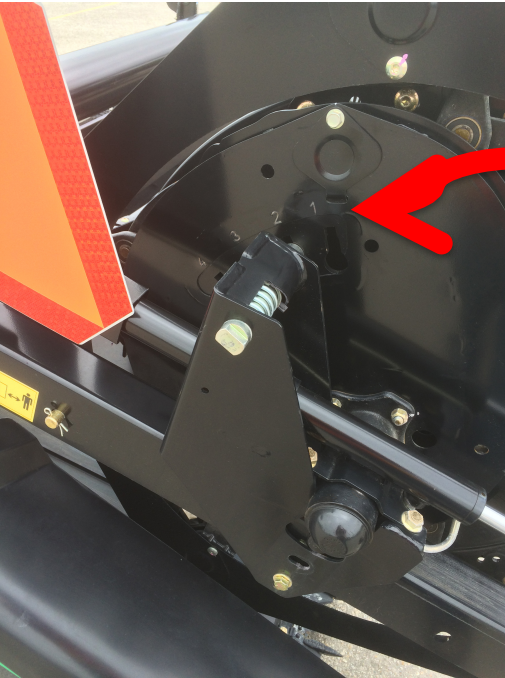
CAUTION: Cover cutterbar and knife guards to prevent injury from accidental contact.

1. Clean the header thoroughly.
2. Store the machine in a dry, protected place if possible. If stored outside, always cover with waterproof canvas or other protective material.
3. If machine is stored outside, remove drapers and store in a dark, dry place.

NOTE: If drapers are not removed, store header with cutterbar lowered so water/snow will not accumulate on drapers. This accumulation of weight puts excessive stress on drapers and header.

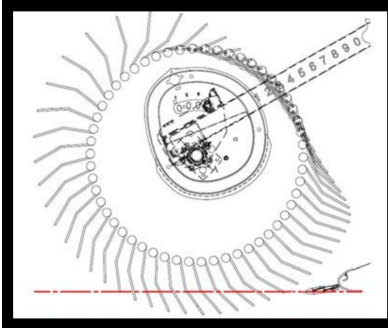
4. Lower header onto blocks to keep cutterbar off the ground.
5. Lower reel completely. If stored outside, tie reel to frame to prevent rotation caused by wind.
6. Repaint all worn or chipped painted surfaces to prevent rust.
7. Loosen drive belts.
8. Lubricate the header thoroughly, leaving excess grease on fittings to keep moisture out of bearings. Apply grease to exposed threads, cylinder rods, and sliding surfaces of components. Oil knife components to prevent rust.
9. Check for worn or broken components and repair or order replacement from your MacDon Dealer. Attention to these items right away will save time and effort at the beginning of next season.
10. Replace or tighten any missing or loose hardware.

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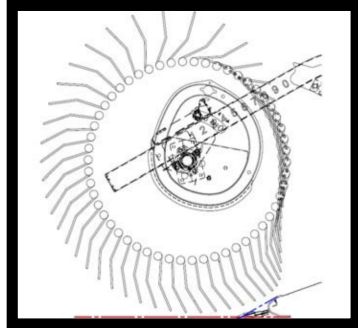


D and FD series headers feature a 4 position reel cam adjustment on the right end each reel (split reel headers must be adjusted separately for each reel). The factory cam setting is position 2. Use a $\frac{3}{4}$ " (19mm) wrench to rotate pin and adjust cam to a different position. **Please Refer to Maintenance and Servicing Section of Operators Manual**

Cam position 4: Most aggressive position, use in lodged crops or when reel fore/aft is extended with the reel ahead of the knife.



Cam position 1: Most gentle position, use in shatter prone crops or when reel fore/aft is retracted behind knife.



Adjusting Draper Deck Height

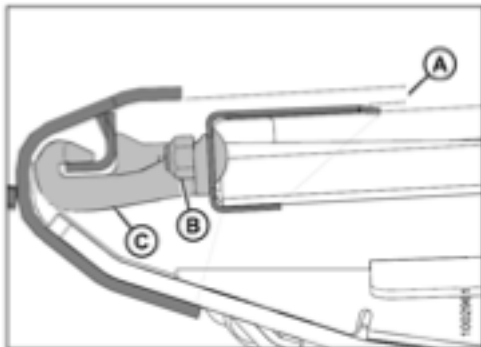


Figure 10.12: Draper removed for clarity

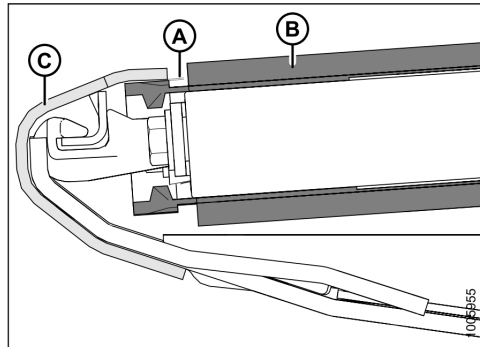


Figure 7.214: Draper removed for clarity

A - Gap (draper to cutterbar) B - Draper C - Cutterbar

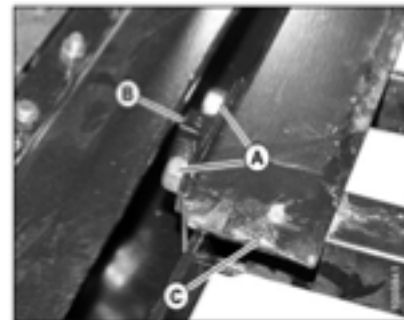
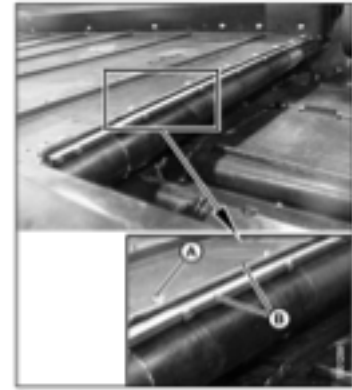


Figure 7.219: Draper removed for clarity

A - Lock nuts B - Deck support C - Deck

Adjusting Deck Height

- Release Draper tension, remove tube connectors, lift up at front edge past cutterbar and roll back.
- Measure draper belt thickness.
- Adjust deck height (A in Fig 10.12) to be 1 mm greater than belt thickness.

Please Refer to Maintenance and Servicing Section of Operators Manual

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Knife Hold Down Adjustment

- Check hold downs every 10 hrs or daily.
- Hold down clearance 0.004 - 0.024in. (0.1 - 0.6mm)

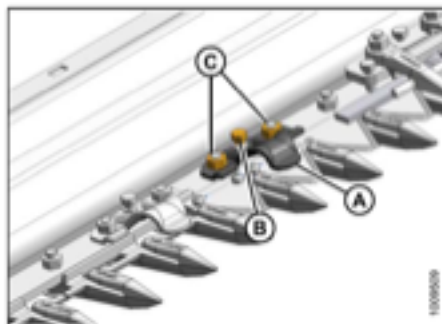


Figure 6.108: Hold-Down Clearance

Double Knife Center Guard Adjustment

- Check clearance periodically.
- If required (crop stripping) adjust clearance to 0.004-0.016 in. (0.1-0.4mm) at guide tip 0.004-0.040 in. (0.1-0.4mm) at rear of guide.
- Torque nuts (B) to 53ft-lbs.

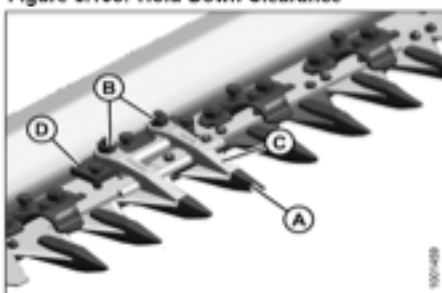


Figure 6.103: Double Knife Guard

A - Knife Guard
B - Nuts
C - Top Guide
D - Adjuster bar

Please Refer to Maintenance and Servicing Section of Operators Manual

Adjusting Center Feed Draper Tension

Adjusting Feed Draper Tension

- Check that Draper is engaged properly in groove of drive roller.
- Hold nut (B) with wrench and turn bolt (C) clockwise to increase tension and counterclockwise to decrease tension.
- Adjust both sides equally.
- Correct tension is when retainer (D) is flush with spring holder, and bolt (E) is free.
- Tension should be just enough to prevent slipping and keep draper from sagging below cutterbar.

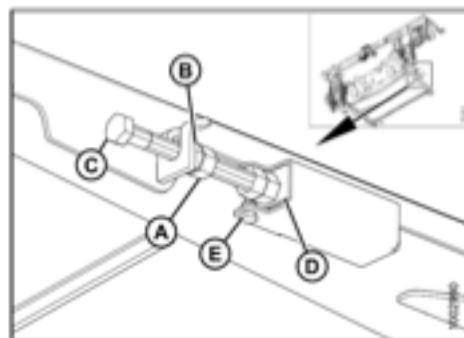


Figure 6.139: Tensioner

A - Jam Nut
D - Retainer
B - Nut
E - Bolt
C - Bolt

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Adjusting Side Draper Tension

- Turn bolt (A) clockwise and white indicator bar (B) will move inward, indicating that the draper is being tightened.
- Turn bolt (A) counterclockwise and indicator bar (B) will move outboard, indicating the draper is being loosened.
- When properly tensioned, the white indicator (B) will be halfway across the inboard side as shown.

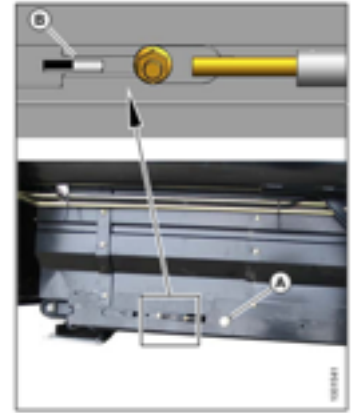
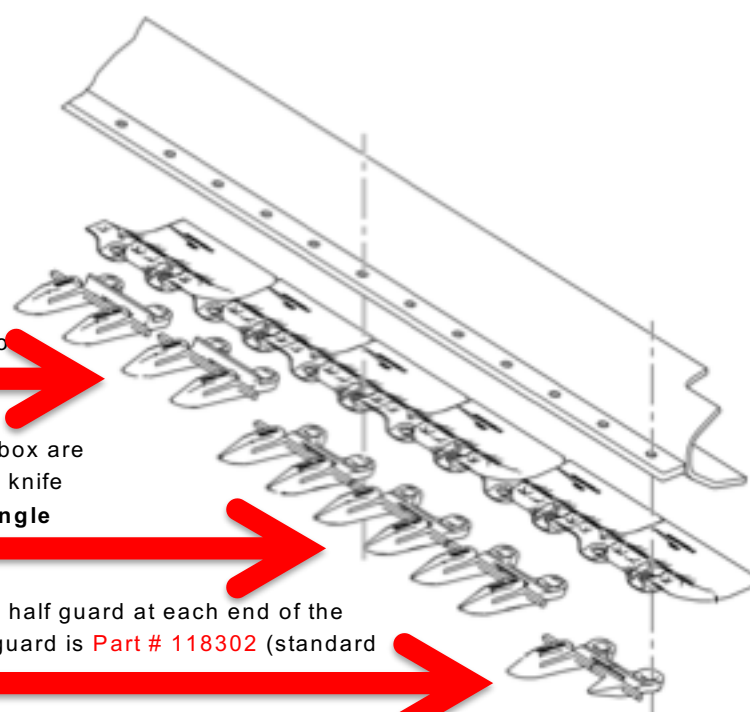
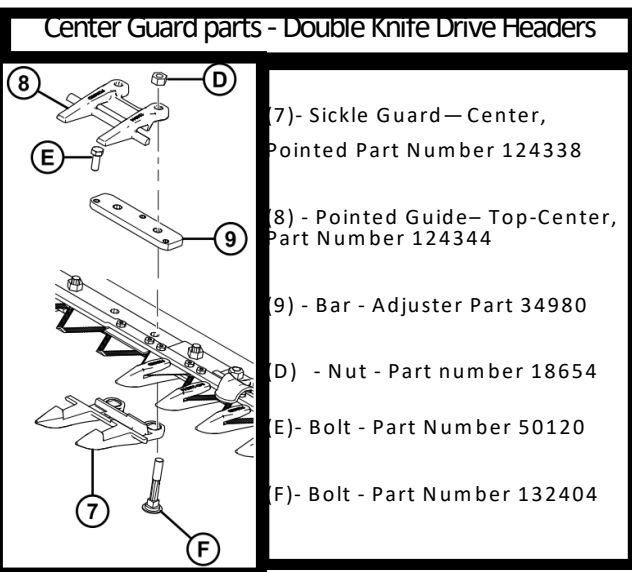


Figure 7.214

• Please Refer to Maintenance and Servicing Section of Operators Manual

Pointed Guard Part Numbers for D and FD Headers



Standard (non stub) guards used in most locations across cutterbar. **Part #118344**

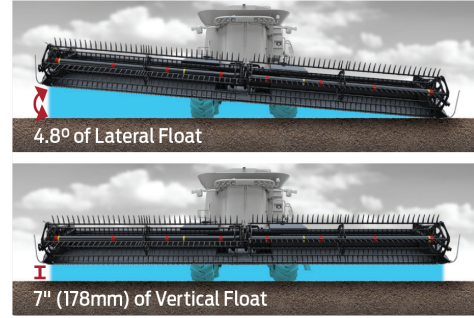
The next 3 guards inboard from either knife drive gear box are **Part #118345** which have no back ledger and allow the knife freedom to oscillate. **Double knife headers have 6, single knife have 3.**

Both single and double knife D and FD headers have a half guard at each end of the header. LH half guard is a **Part # 118301** and RH half guard is **Part # 118302** (standard non stub guards).

Please Refer to the MacDon parts catalogue for part numbers on your specific model

Find your operators manual at: www.macdon.com/support/operators-manuals

MacDon auto header height control (AHHC) functions by sensing the separation (or float) between the header and the combine adapter. The header senses and follows the terrain by riding lightly along the ground suspended from the combine adapter under spring tension. If the header floats up or down off of the combine adapter following the terrain, then AHHC will sense this and will adjust the feeder house and combine adapter to follow the header either up or down.



Setting Auto Header Height Control:

1. Ensure that header float is properly adjusted. Reference the float adjustment section or watch float and wing balance video series at <http://www.macdon.com/videos>
2. Perform a header calibration on your combine (refer to operators manual). In some cases the voltage range will need to be adjusted on the float indicator potentiometer before the combine will calibrate. If required, then please refer to your header operators manual for this adjustment procedure.
3. Unlock float handles (below) on each side of combine adapter. Up is locked, down is unlocked.
4. With stabilizer wheels fully raised and header resting on ground, slightly raise and lower combine feeder house while monitoring the float indicator (A) to verify that indicator has full range from 0 – 4 and that needle doesn't stick.



Header Float (A)
Header Tilt (B)

5. Adjust feeder house height until float needle indicates position 2. This is the recommended ground pressure start point. In wet conditions this may need to be lighter (i.e.1.5)
6. Save float indicator position 2 on your combines auto header height control.
7. With combine parked and header completely lowered, increase combines auto header height control sensitivity until combine feeder house begins to “hunt” or to automatically raise and lower with the combine parked stationary. Slightly decrease sensitivity until feeder house stops “hunting”.
8. When cutting on the ground, float should range from 1-3 on indicator (A) above, with the auto header height control correcting the needle back to position 2 reasonably quickly. When cutting on the ground, it is important that AHHC maintain a range from 0.5-3 on the float indicator since this will keep float springs properly tensioned resulting in correct header ground pressure the best terrain following performance. When cutting off the ground using AHHC (see page 15) needle might be set to position 1 and range from 0-2.

*****Important:** There should only be one point of contact with the ground at any time, either the cutterbar, skid shoes or stabilizer wheels***

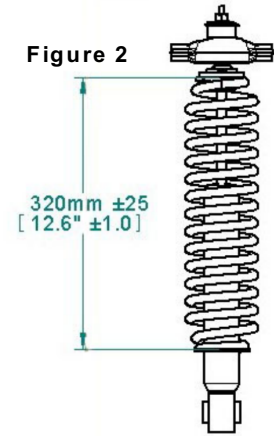
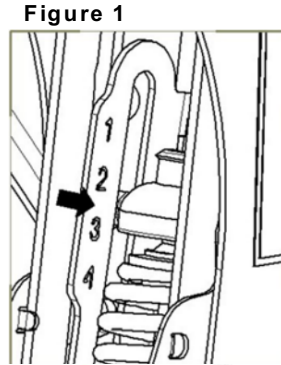
When cutting on the ground: All stabilizer wheels should be locked into the highest notch with wheels completely off the ground.

When cutting off the ground:

➤ **Headers equipped with stabilizer wheel slow speed transport:** Wheels should be adjusted so that the spring is compressed to between 2 and 3 on the stabilizer wheel compression gauge (see figure 1). Depending on header configuration, it might be necessary to adjust LH and RH wheels to different notches to achieve this proper compression and level cut height.

➤ **Headers equipped with the stabilizer wheels only (non transport):** Operate with springs compressed as shown in figure 2. Total spring compression should be 11.6 – 13.6 inches (295-345 mm). It might be necessary to adjust LH and RH wheels to different notches to achieve proper compression and level cut height.

Auto header height control when cutting off the ground: To operate with AHHC when cutting off the ground, it might be necessary to lighten float or to add slightly more compression to stabilizer wheel springs so that the header will float upward off of adapter to sense terrain. Ensure that float is unlocked and properly adjusted (see page 20), do not over compress springs as this may result in hazard or damage to the shock and spring assembly. See page 14 for setting of AHHC.



Adjusting Slow Speed Transport Latch

If slow speed transport latch is difficult to engage (A in figure 4.100), then adjust wheel hang height on rear axel by loosening jam nut and turning bolt at rear axel swing joint using a 3/4" or 19mm wrench and socket (see E and D in figure 3.46 below). Retighten jam nut after adjusting.

• Please refer to Maintenance and Servicing Section of Operators Manual

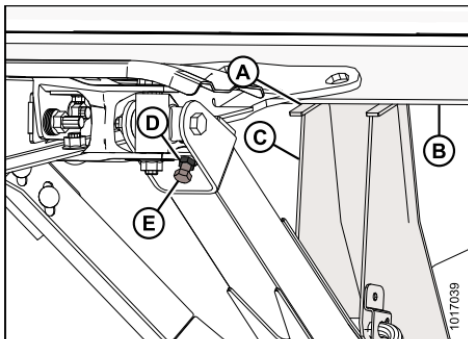


Figure 3.46: Rear Swing Axle

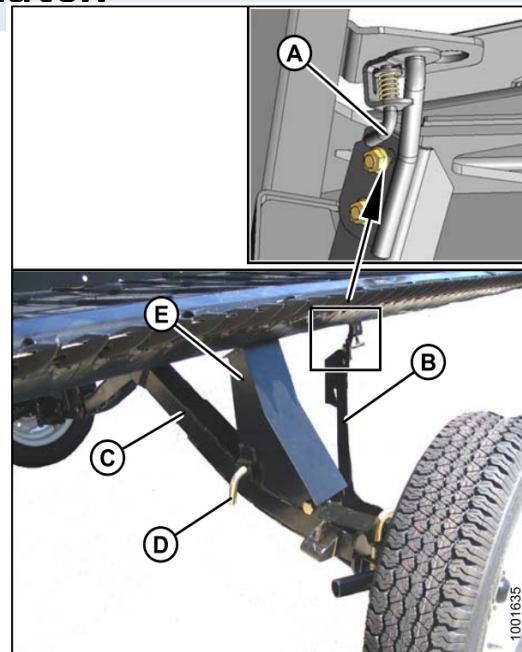


Figure 4.100

Front Link Upgrade Kit

Some welding is required.

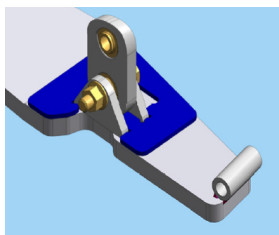
Fits: 2011 & prior FD70

Kit #: Part #123719

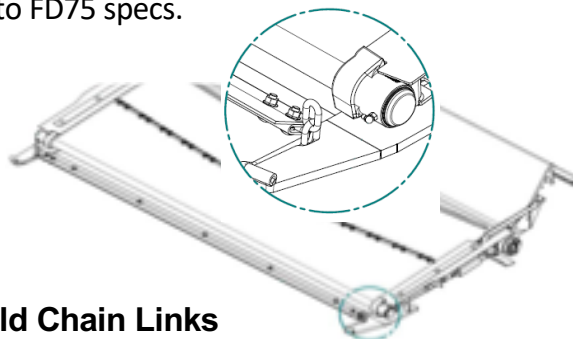
Service Bulletin #: 1115_A

Benefits:

- 1) A more positive connection between the adapter & the header.
- 2) Greatly reduces the chances of feed deck damage.
- 3) Upgrades to FD75 specs.



New Connection Link



Old Chain Links

Front Track Hinge Kit

This kit contains enough pieces to do both sides. Some cutting and welding is required.

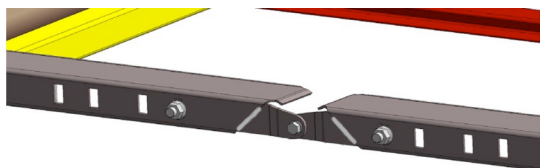
Fits: All FD70's

Kit #: Part #220196

Service Bulletin #: 1249_A

Benefits:

- 1) Longer wear life.
- 2) Reduces chance of damage to draper belts.



New Draper Deck Front Hinge Joint



Old Draper Deck Front Joint (Spring Steel)

Compression Link Upgrade Kit

This kit contains enough pieces to do both sides.

Fits: All FD70's

Kit #: Part #245810

Service Bulletin #: 1530_A

Benefits:

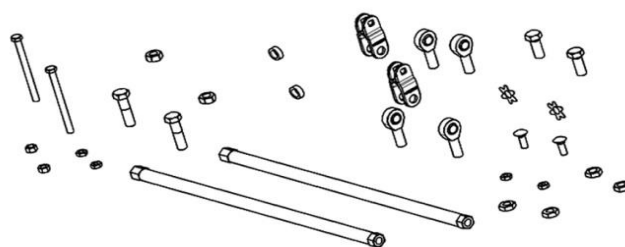
- 1) Eliminates rubber bushing
- 2) More consistent wing balance



New Ball Joint System



Old/Worn Bushing System



Knife Reversing Kit

Fits: All FD70's

Kit #: Whole Goods #B4962

Service Bulletin #: N/A



Knife Reverser Block

Benefits:

- 1) More uptime & more convenience.
- 2) Reverse the knife from the operators seat.
- 3) No need to leave the cab to clear the knife in most instances.
- 4) Upgrades to FD75 specs.

Seed Saver Kit

Fits: All FD70's (Factory installed on all FD75's)

Kit #: Part #279028 Kit

Drilling is required on some models.



Benefits:

- 1) Upgrades to FD75 Specs.
- 2) Seals front corners of adapter to header. Improved sealing means more of your seed is saved while still retaining the front rock sump.

Delicate Seed Kit

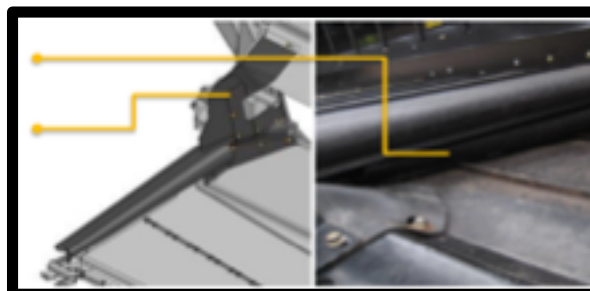
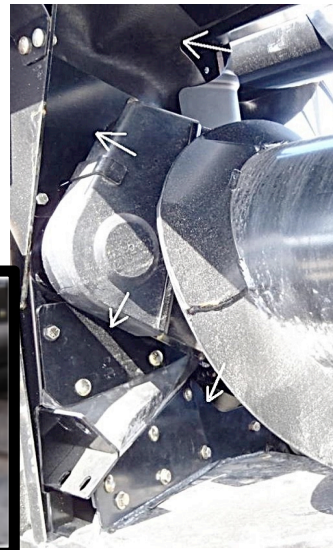
Kit does not generally improve performance in most cereal or large seed pulse crops.

Fits: All FD70's & FD75's

Kit #: For FD70 - Whole Goods #B5661 (Includes items in seed saver kit above)

For FD75 - Whole Goods #B5612

Service Bulletin #: N/A



Benefits:

Seals adapter to header. Improved sealing means more of your seed is saved while still retaining the front rock sump.

Redesigned Reel End Shields

Fits: All FD70's

Kit #: See Chart

Service Bulletin #: 1518_A

Benefits:

- 1) Improves performance with less carry-over & wrapping.
- 2) Increased clearance between reel and header end sheets
- 3) Increased strength.
- 4) Upgrades to FD75 specs.

5 Bat Reel:

Part #	Description	Quantity
164958	Support - Endshield Reel	15
164754	Endshield - 5 bat segmented 5 Series	15
135157	Screw - Machine	15
30228	Nut - Flange DT smooth face 0.375-16Unc	15
105136	Screw - Machine	15*
50186	Nut - Flange lock SM face DT 0.500-13Unc gr5	15*

**Hardware is attached to the reel.*

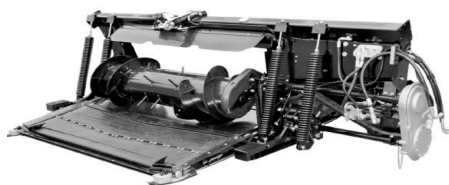


Stainless Steel Feed Pan

Fits: 2013 FD75's & All FD70's

Kit #: Whole Goods #B5819

Service Bulletin #: N/A



Benefits:

- 1) Improved Crop Flow & Productivity.
- 2) Resistance to Corrosion.
- 3) Improved Durability.
- 4) It just looks good.
- 5) Upgrades to FD75 Specs.

Fill Tube Extension Kit

Fits: FD75 & All FD70's

Kit #: Whole Goods #B6057

Service Bulletin #: N/A



Benefits:

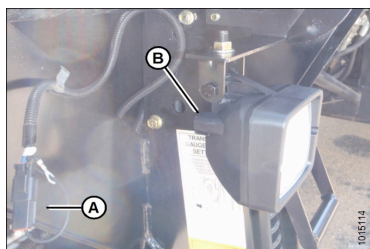
- 1) Extended fill tube option for hydraulic reservoir.
- 2) Allows reservoir to be fully filled for working in extreme hills.
- 3) Prevents pump cavitation's at extreme angles.
- 4) Recommended when header is used on a combine equipped with leveling system (Hilco, etc.)

Stubble Light Kit

Fits: FD75 on JD Combines Only

Kit #: Whole Goods #B6140

Service Bulletin #: N/A



Benefits:

- 1) Improved night visibility.
- 2) Less operator fatigue.
- 3) Better harvesting results.

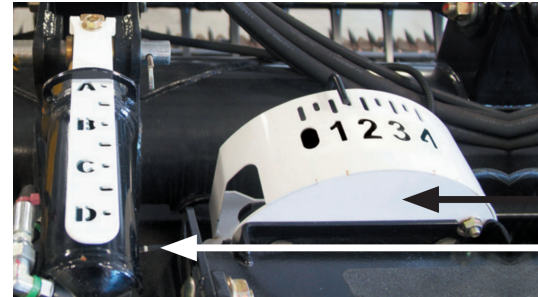
Optimize Reel Cam Position for Canola

- In standing shatter prone canola, the reel should be retracted as far back (Aft) as possible to contain shatter loss onto the draper table. Reel cam positions should also be adjusted to release crop and prevent carry around. Reel cam positions are adjusted on the right end of each reel. Please see page 11 of this document for further information on reel cam positions and how to adjust them.



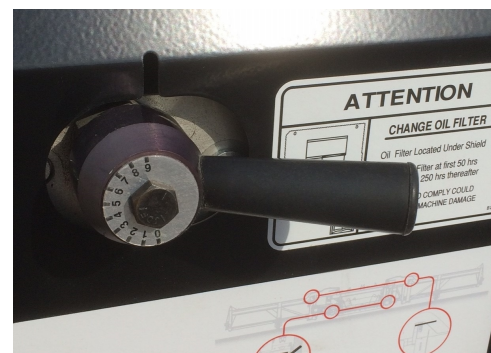
Optimize Header Tilt for Canola

- Retracting header tilt angle to position “A” or “B” will extend the feed drum further into the crop and may aid crop feeding in some high volume crop conditions.



Optimize Cross Auger, Reel & Side Drapers for Canola

- Leave Center Beaters on UCA. In these ripe fluffy conditions they aid in crop delivery into Feed Auger.
- Reel Position
 - As far rearward (Aft) as possible, delivering crop flow into UCA, ensuring reel is behind C-bar.
 - Reel height so that fingers just engage the crop. If reel is too low it can hamper crop flow.
 - Reel Cam set to position 1.
 - Speed equal to ground speed.
- Side Draper Speed
 - Full Open on CA20
 - Position 9 on CA25



Find your operators manual at: www.macdon.com/support/operators-manuals

Feed Auger Optimization for Canola- Spring Tension

- Decrease spring tension to allow feed auger to “Float Up” for higher throughput
 - Decrease LH and RH feed auger spring tension by loosening tensioning bolt until 15mm (.60 inches) of thread remains on the end of the tensioning bolt from the end of the bolt to the nut.
 - Ensure top jam nut is locked to new setting

RH Spring Shown



Canola Feed Auger Optimization- Fingers

- Add finders to Feed Auger.
 - 2012 and Prior- 15 fingers installed at factory
 - 2013 and Newer- 17 fingers installed at factory
 - Provisions for 25 fingers in feed auger
 - 56” to 60” Feeder openings- Full Compliment (25)*
 - 45” to 55” Feeder Openings- (23)*
 - 30” to 44” Feeder Openings- (17-19)*
- Finger (box of 5) Part Number- **220938**
Hair Pin Part Number to Retain Finger- **123180**



Fingers added in these blanked off slots to both LH, RH

*** Ensure fingers are inboard min 2” (50mm) on Feeder Opening of Combine. Number of fingers may vary to achieve this, above is a guideline.**

Upper Cross Auger for Straight Cut Canola

- An Upper Cross Auger is necessary to aid in conveying and assist moving crop laterally in conjunction with the side drapers to the feed auger

- B4847 - 30' (9.1m)
- B4848 - 35' (10.6m)
- B4849 - 40' (12.2m) and 45' (13.7m)

If you already have an Upper Cross Auger, ensure that the center paddles are outfitted with carriage or couch head bolts to prevent crop wrapping.



Find your operators manual at: www.macdon.com/support/operators-manuals

Move Reel Cylinder Locations to Alternate “Aft” Position

This procedure is outlined in the Operators Manuals. For FD75/D65 this will require kit number B5605 short reel brace kit (below)

- Allows the reel to be positioned 220mm rearward (AFT), enabling the reel to sweep Canola into the upper cross auger. This reduces seed loss as the effective “Reel Sweep” and crop interactive/contact is behind the cutterbar, minimizing losses outside the header.
- Position may be suitable for other crops except for severe lodged crop situations where significant pick up action is required.



Shortened Center Reel Brace Kit

- D60 and FD70
 - Not required
- D65 and FD75
 - Kit number B5605
 - Allows reel position to be moved further rearward to alternate aft position without center reel arm brace interference.



Optional higher speed sprockets for more capacity, available through MD Service Parts

2011 and Prior (Plastic Gearbox Cover)

- Lexion-Agco
 - Standard OEM- 18 tooth #151684
 - Recommended- 20 tooth #133425
- CHN-Deere
 - Standard OEM- 18 tooth #151686
 - Recommended- 26 tooth #133424



2012 and Newer (Cast Aluminum Gearbox Cover)

Lexion-Agco

- Standard OEM- 18 tooth #187497
- Recommended- 20 Tooth #187523

CNH-Deere

- Standard OEM- 24 tooth #187496
- Recommended- 26 Tooth #187525

2012 and newer shown



When installing a higher speed sprocket, the factory drive chain will also need to be upgraded to a longer 76 pitch endless chain. This longer chain is currently unavailable through MacDon parts but can be sourced elsewhere.

Find your operators manual at: www.macdon.com/support/operators-manuals

Delicate Seed Kit B5612

- An optional Seed Sealer Kit designed specifically to seal the feed draper and side draper transition area. This kit minimizes losses when harvesting small seeded crops in shatter prone conditions. This kit fits FD75 or D65 headers with CA25 combine adapters.



For FD70, D60, or D50 headers with CA20 adapter use kit# B5661

Vertical Power Knives significantly reduce reed shatter loss from dividing interference

Vertical Mounts

MacDon has available LH and RH mounts which will accept 2 styles of vertical knives. Mount is easily removable between canola and other crops if ordered with quick attach latch kit.

- LH Mount- **B5757 (A)**
- RH Mount- **B5758**
- Optional Quick Attach Divider Latch **B5607 (B)**



Adjust vertical knife speed (C) to the slowest speed that will effectively divide crop. Zeigler vertical knives are not designed for high speed operation.

Vertical Power Knife Option

Aftermarket knife to fit MacDon mounts supplied by:

Zeigler Harvesting Canada:

<http://zeigler-harvesting.ca/>

Phone: (705) 295-4445

Email: zeiglercanada@nexicom.net

Address: 15 McCallum Place, Keene, Ontario, Canada

Zeigler order codes for MacDon ready vertical knife, includes part number 30-050150 adapter bracket for MacDon mount:

- 70-080614A**—LH Zeigler vertical knife kit to fit MacDon B5757 Mount
- 70-080613A**—RH Zeigler vertical knife kit to fit MacDon B5758 Mount
- 30-050150**—Adapter brackets (included in above kits)

Find your operators manual at: www.macdon.com/support/operators-manuals



For D65: Follow Steps 1 to 3 Only

THESE ARE THE 5 STEPS TO SET HEADER FLOAT AND WING BALANCE

IMPORTANT

Be sure to have read your operator's manual, and complete all set-up tasks before setting header float and wing

STEP 1: PRE-ADJUSTMENTS Complete before adjusting float or wing balance.

1. Park combine on a level surface. Ensure that the combine feederhouse is level.
2. Adjust header so cutterbar is 6-10 inches (150–254 mm) off the ground.
3. Set guard angle to mid-position (between B and C on the indicator).
4. Set the reel fore-aft to mid-position (5 or 6 on reel arm decal).
5. Lower reel completely. Shut down the combine.
6. Place wing lock spring handles in the locked position.
7. Place header float locks in unlocked (lowered) position.
8. If equipped, set stabilizer/transport wheels to the fully raised position.

STEP 2: CHECK HEADER FLOAT

1. Remove the special torque wrench (A) from storage position on right side of the CA25 combine adapter.
2. Place torque wrench (A) on the float lock at (B). Note change in orientation of wrench between left and right side.
3. Push down on torque wrench (A) until bell crank (C) rotates forward.
4. Continue pushing down until indicator (D) on wrench reaches a MAXIMUM reading and begins to decrease. Note the maximum reading.
5. Repeat above steps for opposite side.
6. The readings should match the values in TABLE 1. HEADER FLOAT.

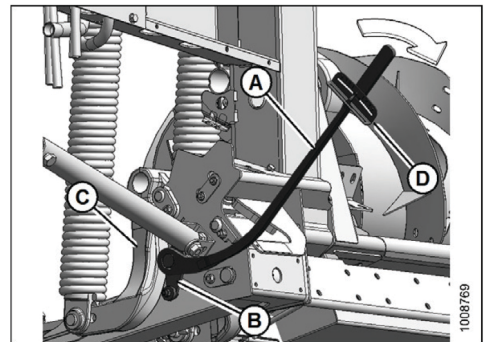
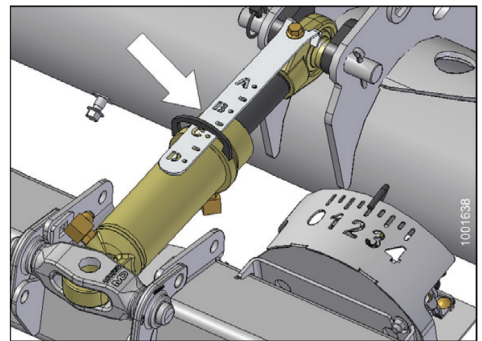
For FD75: Complete All Steps

TABLE 1. HEADER FLOAT

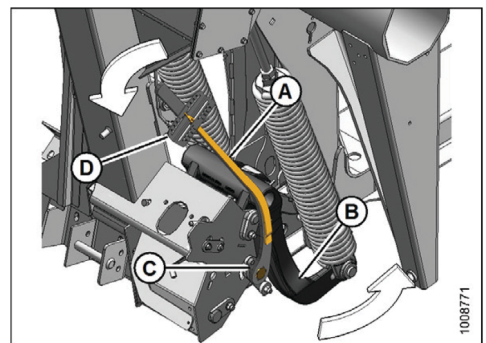
Header Width	Torque Settings	
	Cutting on the Ground	Cutting off the Ground
30 and 35 ft.	1-1/2 to 2	2 to 2-1/2
40 and 45 ft.	2 to 2-1/2	2-1/2 to 3

IMPORTANT

The torque settings in the above table are recommended header float settings. Crop and field conditions may require adjusting the float to values outside these guidelines.



LEFT SIDE



RIGHT SIDE

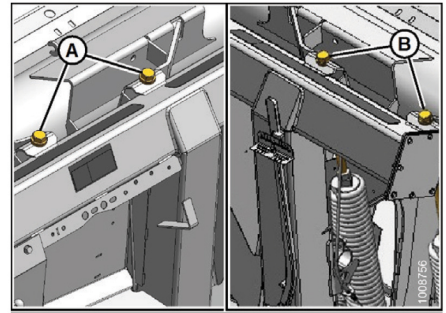
Video instructions for this procedure are available at www.macdon.com/videos/macdon-fd75-flexifloat-setup-header-float

STEP 3: SET HEADER FLOAT

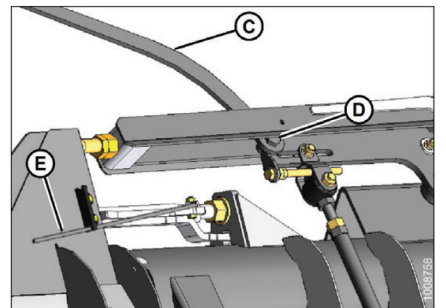
1. Refer to TABLE 1 for recommended initial float setting:
 - If reading on wrench is high, header is heavy, so increase float.
 - If reading on wrench is low, header is light, so decrease float.
2. Adjust header float to match values in TABLE 1. Turn each bolt pair equal amounts.
 - To **increase float** (lighter header), tighten (clockwise) float spring bolts (A) and (B).
 - To **decrease float** (heavier header), loosen (counter clockwise) float spring bolts (A) and (B).
 - **Ensure wrench reading is EQUAL ON BOTH SIDES**

NOTE

For 40 and 45 ft. double-knife headers, adjust float as above, and then loosen RIGHT SIDE FLOAT spring bolts (B) 2 turns.



LEFT SIDE FLOAT RIGHT SIDE FLOAT



LEFT SIDE SHOWN, RIGHT SIDE OPPOSITE

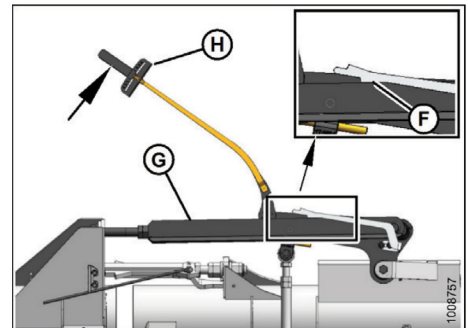
STEP 4: CHECK WING BALANCE

1. Remove poly linkage covers.
2. Place torque wrench (C) on bolt (D).
3. Move spring handle (E) to lower position so that lock link drops into lower slot.

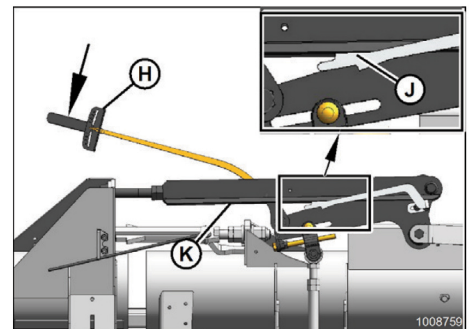
NOTE

*If lock link does **not** engage lower slot, move with torque wrench (C) until lock link moves into slot.*

4. Move wing **upward** with torque wrench (C) until pointer lower alignment tab (F) lines up with upper edge of top link (G). Note indicator reading (H) on wrench.
5. Move wing **downward** with torque wrench (C) until pointer upper alignment tab (J) lines up with the lower edge of the top link (K). Note indicator reading (H) on the wrench.
6. If the **difference** between the readings is **1/2 or less**, the wing is **balanced** and no further adjustment is required.
7. If the **difference** between the readings is **more than 1/2**, the wing is **not balanced**. Record the readings and proceed to **STEP 5**.



WING UP



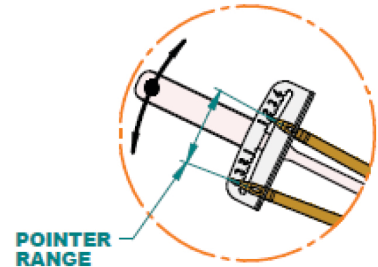
WING DOWN

Float video instructions www.macdon.com/videos/macdon-fd75-flexfloat-setup-header-float
 Wing balance Video instructions www.macdon.com/videos/macdon-fd75-flexfloat-setup-wing-balance

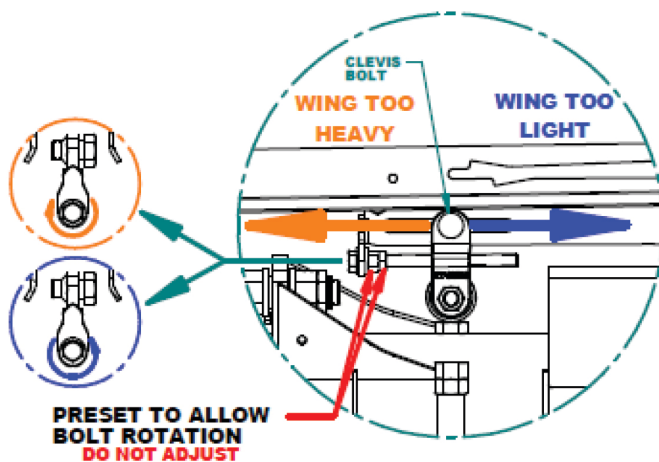
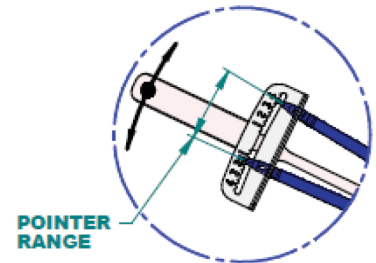
STEP 5: ADJUST WING BALANCE

1. Use the readings taken in **STEP 4**, and the images on this page to determine if the wing is too heavy or too light.
2. Loosen the clevis bolt for the wing requiring adjustment.
3. Balance the wing according to the Wing Balance Adjustment Detail image below.
4. Tighten the clevis bolt.
5. Repeat **STEPS 4 and 5** for the opposite wing (if necessary).
6. Re-install poly linkage covers.

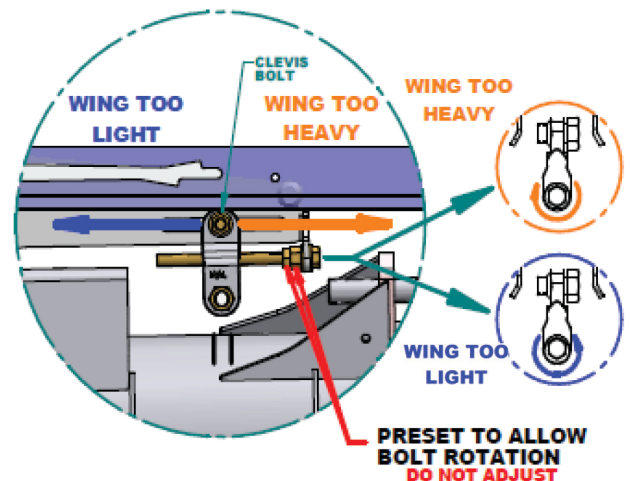
WING TOO HEAVY



WING TOO LIGHT



Left Side Wing Balance Adjustment Detail



Right Side Wing Balance Adjustment Detail

Wing balance Video instructions available at www.macdon.com/videos/macdon-fd75-flexfloat-setup-wing-balance

