

Recommended Fluids and Lubricants

Ensure your machine operates at top efficiency by using only clean fluids and lubricants. Use clean containers to handle all fluids and lubricants. Store fluids and lubricants in an area protected from dust, moisture, and other contaminants.

Lubricant	Specification	Description	Use	Capacities
Grease	SAE multi-purpose	High temperature extreme pressure (EP) performance grease with 1% max Molybdenum Disulphide (NLGI Grade 2) lithium base	As required unless otherwise specified	—
		High temperature extreme pressure (EP) performance grease 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	2.2 liters (2.3 quarts)
			Main drive gearbox	2.5 liters (2.6 quarts)
Hydraulic Oil	Single grade transmission/hydraulic fluid (THF) Recommended viscosity: <ul style="list-style-type: none"> 60.1 cSt @ 40° C (104° F) 9.5 cSt @ 100° C (212° F) Recommended brands: <ul style="list-style-type: none"> Petro-Canada Duratran John Deere Hy-Gard J20C Case Hy-Tran Ultraction AGCO Power Fluid 821 XL 	Lubricant trans / hydraulic oil	Header drive systems reservoir	85 liters (22.5 US gallons)

Break-In Inspections

To help avoid major component service or replacement, perform break-in inspections on your machine during the first 50 hours of operation. Refer to your operator's manual for complete break-in inspection and adjustment procedures.

Inspection Instance	Item
First 5 Minutes	Check hydraulic oil level in reservoir (check after first run-up and after the hydraulic hoses have filled with oil).
5 Hours	Check for loose hardware and tighten to required torque.
	Check knife drive belts tension (check periodically for the first 50 hours).
10 Hours	Check auger drive chain tension.
	Check knife drive box mounting bolts.
50 Hours	Change float module gearbox oil.
	Change float module hydraulic oil filter.
	Change knife drive box lubricant.
	Check gearbox chain tension.
	Check deck height adjustment.

Ongoing Maintenance Intervals

Refer to the operator's manual for a comprehensive maintenance schedule and record. Log hours of operation, use the maintenance record, and keep copies of your maintenance records. Following the maintenance schedule will increase your machine's life.

Subject to change without notice

SETTING HEADER FLOAT AND WING BALANCE

Follow these five steps to set the header float and wing balance:

IMPORTANT:

Read your operator's manual and complete all the setup tasks before setting the header float.

Step 1: Preadjustments Complete before adjusting float or wing balance.

- Park the combine on a level surface, and ensure the feeder house is level.
- Ensure the top of the float module is level with the combine axle and the combine tires are inflated equally.
- Adjust the header so the cutterbar is 150–254 mm (6–10 in.) off the ground.
- Set the header angle hydraulic cylinder to between B and C on indicator (A).
- Adjust the reel fore-aft to the middle position (5 or 6 on the reel arm decal).
- Lower the reel completely, shut down the combine, and remove the key from the combine ignition.
- Place wing lock spring handles (B) in the locked (upper) position.
- Place both left and right header float locks (C) in the unlocked (lowered) position.
- Set the stabilizer/transport wheels (if equipped) to the storage position.

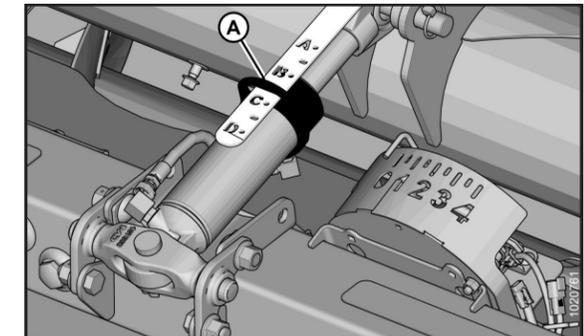


Figure 1: Header Angle Hydraulic Cylinder

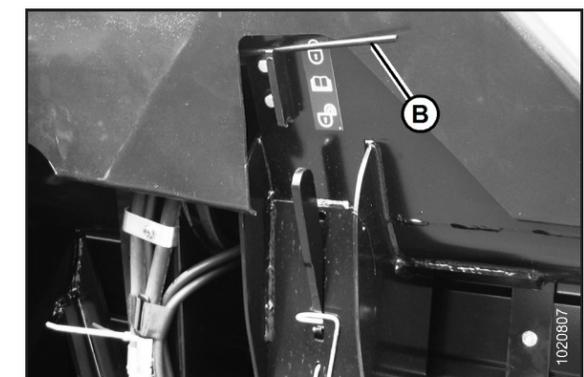


Figure 2: Wing Lock Spring Handle in Locked Position

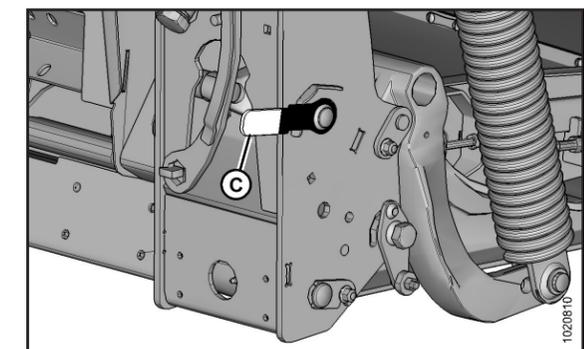


Figure 3: Float Unlocked – Right Side Shown

Step 2: Retrieving Torque Wrench from Storage

- Remove special torque wrench (A) from its storage position at the right side of the float module frame. Pull in the direction shown to disengage the wrench from its hook.

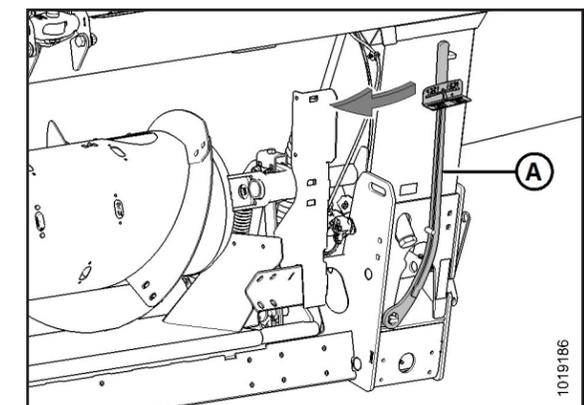


Figure 4: Torque Wrench Storage Location

Step 3: Checking Header Float

- Place torque wrench (A) onto float pivot (B). Note the change in wrench orientation when checking the float module's left and right sides.
- Push down on torque wrench (A) to rotate bell crank (C) forward.
- Continue pushing down on the torque wrench until wrench indicator (D) reaches a maximum reading and then begins to decrease. Note the maximum reading.
- Repeat the above steps for the opposite side of the float module.
- Refer to Table 1.1 as a guide for the float settings.
 - If the reading is high, the header is heavy.
 - If the reading is low, the header is light.

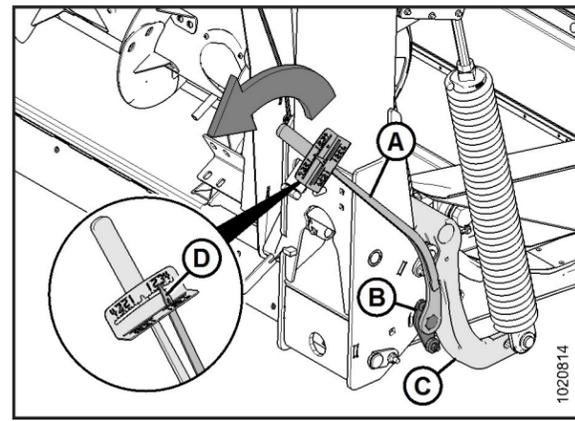


Figure 5: Checking Float – Right Side Shown

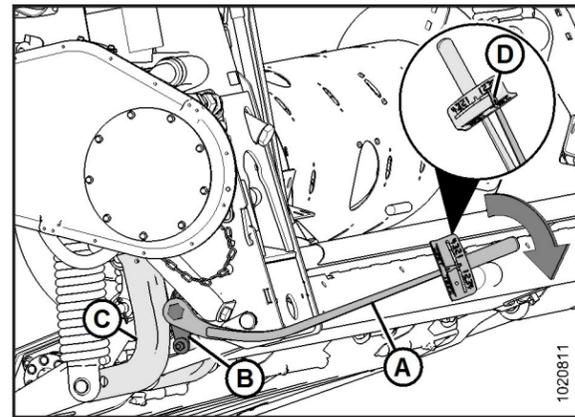


Figure 6: Checking Float – Left Side Shown

Table 1.1: Float Settings

Header Model	Indicator Reading	
	Cutting on the Ground	Cutting off the Ground
FD125, FD130, and FD135	1 1/2 to 2	2 to 2 1/2
FD140 and FD145	2 to 2 1/2	2 1/2 to 3

IMPORTANT:

Torque settings in Table 1.1: Float Settings are the recommended header float settings. If necessary, adjust the float values to suit the crop and field conditions.

Step 4: Setting Header Float

- Before adjusting float spring adjustment bolts (A), rotate spring locks (B) by loosening bolts (C).
- To **increase** float (decrease header weight), turn both adjustment bolts (A) on the left side clockwise. Repeat the adjustment at the opposite side.
- To **decrease** float (increase header weight), turn left side adjustment bolts (A) counterclockwise. Repeat the adjustment at the opposite side.

IMPORTANT:

Ensure the torque wrench indicator readings are equal on both sides of the float module.

NOTE:

For FD140 and FD145 double-knife headers, set the float as described above, then loosen the right side float spring bolts two full turns.

NOTE:

If the adequate header float cannot be achieved using all available adjustments, an optional heavy duty spring is available. See your MacDon Dealer or refer to the parts catalog for ordering information.

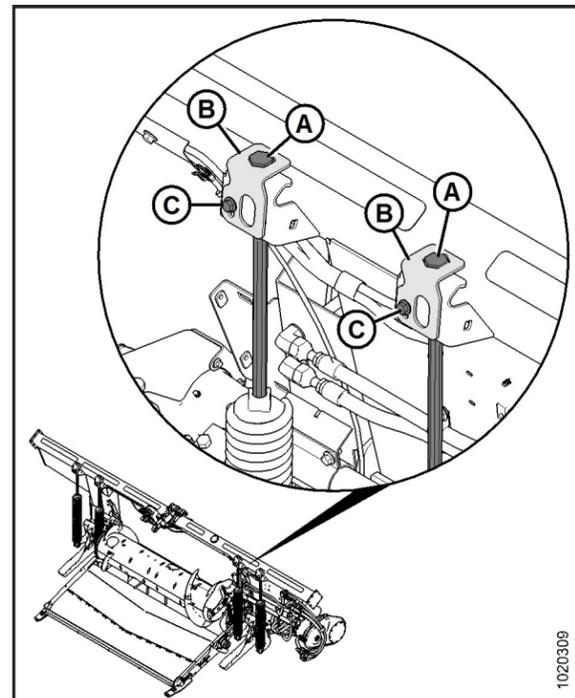


Figure 7: Float Adjustment Bolts – Left Side Shown

IMPORTANT:

Before proceeding, the header float must be set properly. Refer to Step 4: Setting Header Float.

Step 5: Checking Wing Balance

- Remove the wing balance linkage cover on the left side of the float module by removing the securing bolt, and rotating the cover upwards until the inboard end can be lifted off.
- Place the wing lock spring handles in the unlocked (lower) position.
- Place torque wrench (A) on bolt (B).
- Check that pointer (C) is properly positioned as follows:
 - Use torque wrench (A) to move the bell crank until lower edge of bell crank (D) is parallel to lower edge of top-link (E).
 - Ensure pointer (C) is aligned with top-link (E). If necessary, bend the pointer so it aligns with bolt hole (J).
- Move the wing upward with torque wrench (A) until the pointer's lower alignment tab (F) lines up with the upper edge of top-link (E). Refer to Figure 8. Record the reading on torque wrench indicator (G).
- Move the wing downward with torque wrench (A) until the pointer's upper alignment tab (H) lines up with the lower edge of top-link (E). Refer to Figure 9. Record the reading on torque wrench indicator (G).
- Check the wing balance on the opposite side of the header.
 - If the difference between the readings is 0.5 or less, the wing is balanced and adjustment is not required.
 - If the difference between the readings is more than 0.5, the wing is not balanced and adjustment is required.

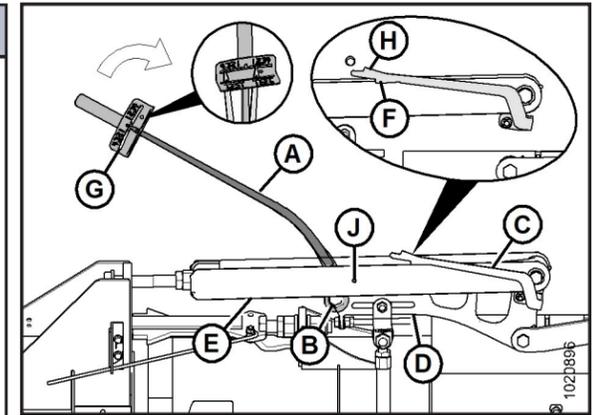


Figure 8: Wing Balance Linkage, Wings Set too Light – Left Side Shown, Right Opposite

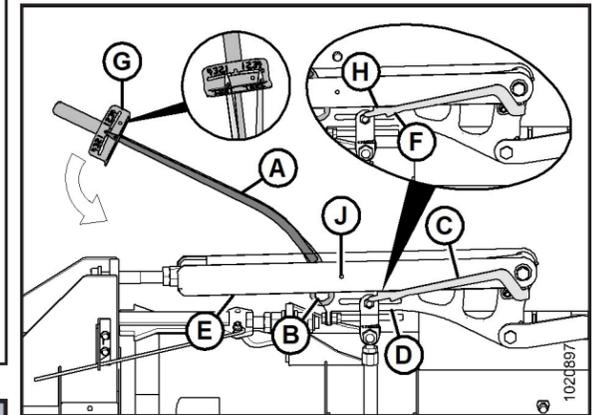


Figure 9: Wing Balance Linkage, Wings Set too Heavy – Left Side Shown, Right Opposite

Step 6: Adjusting Wing Balance

- Place torque wrench (A) on bolt (B) on the left side of the header.
- Loosen clevis bolt (C) and jam nut (J).
- Recheck the wing balance. Refer to Step 5: Checking Wing Balance.
- If necessary, make the following adjustments:
 - If the wing is too heavy, turn clevis adjuster bolt (D) clockwise to move clevis (E) outboard (F).
 - If the wing is too light, turn clevis adjuster bolt (D) counterclockwise to move clevis (E) inboard (G).
- Adjust clevis (E) position (if necessary) until the difference between the torque wrench indicator readings is 0.5 or less. Tighten clevis bolt (C) and jam nut (J).
- Place wing lock spring handles (H) in the locked (upper) position. If the lock doesn't engage, move the wing up and down with torque wrench (A) until it locks. When locked, there will be some movement in the linkage. Repeat on the opposite side of the header.
- If the cutterbar is not straight when the wings are in lock mode, then further adjustments are required. Contact your MacDon Dealer.
- Return torque wrench (A) to its storage location on the float module frame.

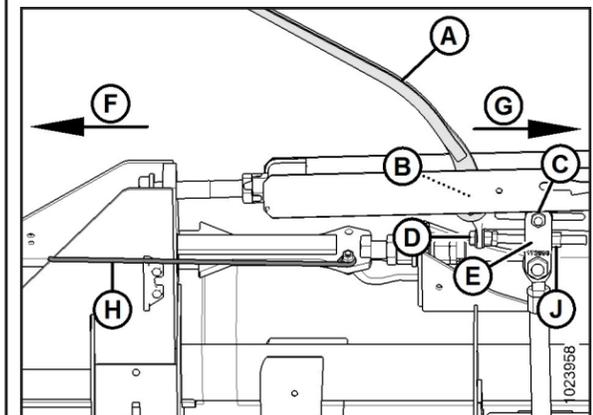


Figure 10: Wing Balance Linkage – Left Side Shown