Ongoing Maintenance Intervals

Time	Service
10 Hours or Daily	1. Check tire inflation. 2. Check engine oil level. 3. Check engine coolant level at reserve tank. 4. Clean radiator, hydraulic oil cooler, charge air cooler, and A/C condenser. 5. Check hydraulic oil level. 6. Drain fuel filter water trap. 7. Fill fuel tank. 8. Check hydraulic hoses and lines for leaks.
50 Hours	1. Grease caster pivots. 2. Grease top lift link pivots. 3. Grease forked caster spindle bearings. 4. Clean cab fresh air intake filter. 5. Check gearbox oil level.
100 Hours or Annually	1. Clean cab air return filter.

NOTE: Refer to M155 Operator's Manual for 250, 500, 1000, 1500, 2000, 5000 hour and annual maintenance.

Break-In Inspections

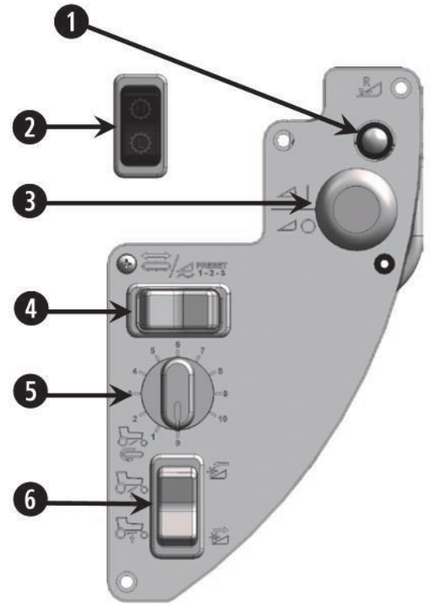
Hrs	Item	Check
1	Drive wheel nuts	Torque: 510 N·m (375 ft·lbf) dry. Refer to M155 Operator's Manual
5	A/C belt	Tension
	Caster wheel nuts	Torque: 163 N·m (120 ft·lbf)
	Caster wheel anti-shimmy dampener bolts	Torque inboard bolt: 135 N·m (100 ft·lbf) Outboard bolt: 115 N·m (85 ft·lbf)
	Walking beam width adjustment bolts	Torque: 448 N·m (330 ft·lbf)
10	Walking beam width adjustment bolts	Torque: 448 N·m (330 ft·lbf)
	Neutral	Adjusted by Dealer
50	Hose clamps: air intake, radiator, heater and hydraulic	Hand-tighten unless otherwise noted
	Walking beam bolts	Torque: 448 N·m (330 ft·lbf)
	Caster wheel anti-shimmy dampener bolts	Torque inboard: 135 N·m (100 ft·lbf) Torque outboard: 115 N·m (85 ft·lbf)
	Main gearbox oil	Change
	Drive wheel oil lubricant	
	Charge system & hydraulic oil filters (except lift)	
	Manifold oil filter	

Fluids and Lubricants

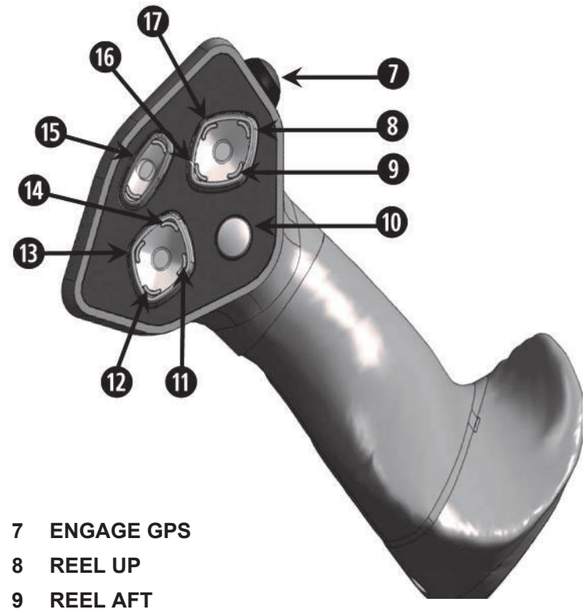
Fluid	Volume	Spec.	Description/ Information
Fuel: Diesel No.2	367 L (97 US gal)	ASTM D-975 Grade S15	Sulphur (by weight) 0.5% max. Water and Sediment (by vol) 0.05% max. Lubricity 520 microns
Fuel: Diesel No.1 and No. 2 mix	367 L (97 US gal)	n/a	Sulphur (by weight) 0.5% pref. 1% max. Water and Sediment (by weight) 0.1% max. Lubricity 460 microns
Engine coolant (antifreeze)	24 L (6.3 US gal)	ASTM D-6120 and Fleetguard ES Compleat®	Refer to M155 Operator's Manual
Drive wheel lubricant	1.4 L (1.5 US qt.)	SAE 75W-90 API service class GL-5	Fully synthetic gear lubricant (SAE J2360 preferred)
Grease	N/A	SAE multi-purpose	High temperature extreme pressure EP2 Max.1% molybdenum disulphide, lithium base. Use as required unless otherwise noted
Engine oil	11 L (11.6 US qt.)	SAE 15W-40 for API class SJ and CH-4	Engine oil pan
Hydraulic oil	65 L (17.2 US gal)	SAE 15W-40 for API class CJ-4. Refer to Operator's Manual	Windrower drive and header drive
Gearbox lube	2.1 L (2.2 US qt.)	SAE 75W-90 API service class GL-5 (SAE J2360 preferred)	Fully synthetic gear lubricant for engine gearbox
A/C refrigerant	2.27 kg (5 lb.)	R134A	Cab A/C system
A/C compressor oil	240 cc (8.1 fl. oz)	SP-15 PAG	Cab A/C compressor lubricant

Tire Pressures

Drive tires	18 - 26 bar 221 kPa (32 psi)	600 - 65 R28 bar 179 kPa (26 psi)	580 / 70 R26 turf 165 kPa (24 psi)
	18.4 - 26 turf 241 kPa (35 psi)	23.1 - 26 turf 138 kPa (20 psi)	
Rear tires	All rear tire pressures are 69 kPa (10 psi)		



1 **REVERSER** - To activate, hold down and engage the header (requires optional hydraulics)
2 **GROUND SPEED RANGE**
3 **HEADER ENGAGE**
4 **DECK SHIFT / FLOAT PRESET**
5 **DWA DRAPER SPEED** (optional)
6 **DWA RAISE / LOWER**



7 **ENGAGE GPS**
8 **REEL UP**
9 **REEL AFT**
10 **SCROLLS THE TOP LINE OF DISPLAY**
11 **HEADER TILT UP** (retracts center-link)
12 **HEADER DOWN**
13 **HEADER TILT DOWN (**extends center-link)
14 **HEADER UP**
15 **REEL** (D65/A40) **/ DISC SPEEDS** (R-Series)
16 **REEL DOWN**
17 **REEL FORE**

Float Presets

A-Series, R-Series, or D-Series - Without Hydraulic Deck Shift

FLOAT PRESET/DECK SHIFT switch allows for auto-memory of three different trim cylinder positions. For example:

#1 - Border Width LH 5.0, RH 6.5
#2 - Normal Width LH 5.0, RH 5.0
#3 - Rocky Width LH 6.5, RH 6.5

D-Series with Hydraulic Deck Shift

DECK SHIFT switch activates hydraulic deck shifting when the header is engaged, and allows for auto-memory of trim cylinder adjustments in each delivery opening position.

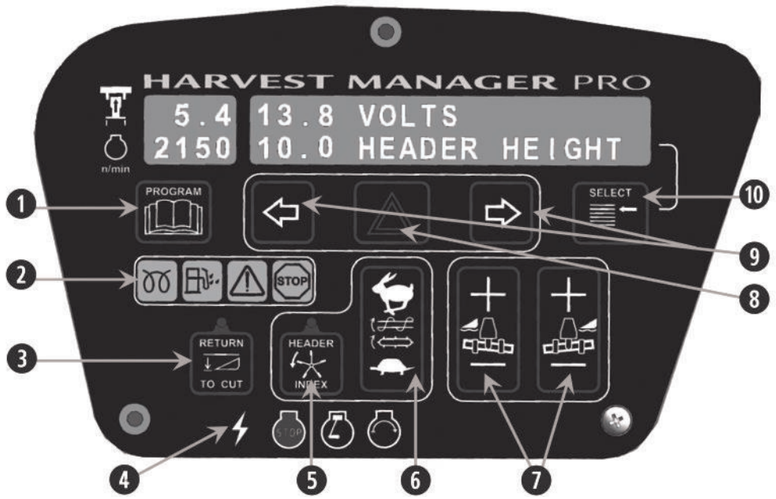
Allows for compensation of weight shifts to the float springs.

Normal Start - Engine Temp above 60°F (16°C)

1. Switch main battery disconnect switch to **ON**.
2. Place GSL in **N-DETENT.** Push HEADER DRIVE switch to **OFF.**
3. Ensure seat is locked in either Cab Fwd or Engine Fwd position.
4. Fasten seat belt. Set throttle to **START** position - fully back.
5. Sound horn three times.
6. Turn ignition key to **RUN** position. Single loud tone sounds. Engine warning lights flash in self-test mode, and CDM displays "HDR DISENGAGED" and "IN PARK".
7. Turn ignition key to **START** position until engine starts. Release key. Allow engine to run at IDLE until temperature reaches 40°C (100°F).

   CDM displays programmed header data for five seconds (if attached) and then returns to previous display.

Programming the CDM



1 **PROGRAM** - Press to enter/exit set-up modes and for key shortcuts.

2 **ENGINE WARNING** - Engine preheat, water in fuel, engine malfunction, and stop engine.

3 **RETURN TO CUT -** When green light is ON, RETURN TO CUT function is active.

4 **IGNITION** - Accessory, Stop, Run, and Start.

5 **HEADER INDEX -** When green light is ON, reel/conveyor speed features are active.

6 **AUGER / DRAPER SPEED -** Adjusts draper or auger speed depending on header.

7 **FLOAT -** Provides in-cab adjustments for independent left/right header flotation.

8 **HAZARD WARNING LIGHT -** Flashing amber lights operate in both cab-forward and engine-forward positions.

9 **TURN SIGNAL -** Activates turn indicators and scrolls through CDM setup screens.

10 **SELECT -** Changes bottom line of display and works as the ENTER button in program mode.

Header Index Mode

Header index mode is desirable in some crop and terrain conditions because it allows the reel and conveyor to be driven by reference to ground speed, so that header systems speed up and slow down as ground speed changes.

Operation of Header Index for REEL SPEED: (A-Series and D-Series)

1. Clear all bystanders, start the windrower, and engage the header.
2. With the GSL in park, use the REEL SPEED control switch to set a minimum reel speed.
3. When operating at ground speeds faster than the minimum reel speed + header index value, REEL SPEED display will change to REEL INDEX.
4. Adjust the header index value using the GSL REEL SPEED switch.

   Reel speed will be equal to ground speed + index value or minimum reel speed (whichever is greater).

Operation of Header Index for Draper Speed: (D-Series Only)

Follow instructions above, using the CDM AUGER/ DRAPER SPEED control, rather than the GSL REEL SPEED switch.

Tips and Shortcuts

Entering Programming Mode	Ignition ON Press and hold **PROGRAM** and **SELECT** at the same time, until the CDM display enters programming mode.
Exiting Programming Mode	Press **PROGRAM.**
Changing Language to English	Ignition OFF Press and hold **HEADER INDEX** and **PROGRAM** and **SELECT.**
Clearing Sub-Acres	Cab-Forward position. Ignition ON. Press **SELECT** until SUB-ACRES is viewed on the bottom line of the display. Press and hold **PROGRAM** until SUB-ACRES changes to 0.0.
Disconnecting Batteries	The battery disconnect switch is located just behind the batteries and can be accessed by opening the maintenance platform. Ensure the switch is in the **OFF** position when servicing electrical components, or when the windrower will not be used for periods longer than one week.

CDM Programming Mode: Windrower Setup

(See M155 Operator's Manual for complete instructions and detailed information)

SET KNIFE SPEED → SPM	Adjusts knife speed on draper and auger headers. Every header size and type of knife drive will have a different range for the knife speed. Refer your header Quick Card for optimal settings.
KNIFE / DISC OVERLOAD SPD →SPM/RPM	KNIFE OVERLOAD SPEED (Auger/Draper) to be set at 75% of desired knife speed. DISC OVERLOAD SPEED (Rotary) should be set to 1300 rpm.
OVERLOAD PRESSURE → PSI/BAR	Adjusts warning pressure of overload sensor (reel/draper/knife/disc system). See Overload Recommendations Chart below.
HEADER INDEX MODE → Reel+Drapers OR Reel Only	Auger and Draper headers only. Allows the reel and conveyor to be driven by reference to ground speed.
RETURN TO CUT MODE → Height+Tilt OR Height Only	Set functions to be controlled by RETURN TO CUT (RTC) mode.
AUTO RAISE →	Sets header-up height in RETURN TO CUT (RTC) mode. Range is 4.0 (min) to 10.0 (max).
DWA INSTALLED → YES/NO?	Activates electrical controls for Double Windrow Attachment when installed.
SWAP DWA CONTROLS→ NO/YES?	If YES is selected, the REEL FORE-AFT buttons on the GSL and the DWA RAISE/LOWER switches on the console will swap functions.
DWA AUTO UP/DOWN YES/NO?	Enables the express UP and DOWN features in RETURN TO CUT (RTC) mode.
HEADER CUT WIDTH → ##.# FT/M	Set cut width according to operating width. Calibration of acre counter. Header ID displayed on CDM at top right.
HAY CONDITIONER → YES/NO?	Draper Header only. Activates hydraulics for conditioner and feed deck drive systems.
AUGER HDR REEL SPD → RPM or MPH/KMH	Selection will appear only with an auger header attached. Allows REEL SPEED to display in rpm or mph or kph.
SET TIRE SIZE →	Select installed tire size for ground speed and acre counter calibration.
SET ENGINE ISC RPM → NO/YES?	ENGINE INTERMEDIATE SPEED CONTROL. Engine rpm can be limited to a specified value while header is engaged. Scroll to desired rpm value. Use HAZARD button to set.
SET CONTROL LOCKS → NO/YES?	Allows header functions to be locked from Operator control (for example: locking reel speed and/or reel fore-aft controls from Operator.)
VIEW CONTROL LOCKS → NO/YES?	Allows Operator to view control lock status, and engine hours when status was established (for example: REEL FORE-AFT - 224.5 HRS LOCKED).

Header Model	Application / System	Suggested Overload Warning Setting kPa (psi)	Windrower Pressure Relief Setting kPa (psi)
R-Series	Disc pressure	27579 (4000)	28958 (4200)
A-Series D-Series	Reel / draper pressure	20684 (3000)	22063 (3200)
	Knife / conditioner pressure	27579 (4000)	28958 (4200)

M155 Windrower Quick Card - Form 147960 Rev. A
Supplement to M155 Windrower Operator's Manual

MacDon