MacDon

Swath Compressor for M1 and M2 Series Windrowers

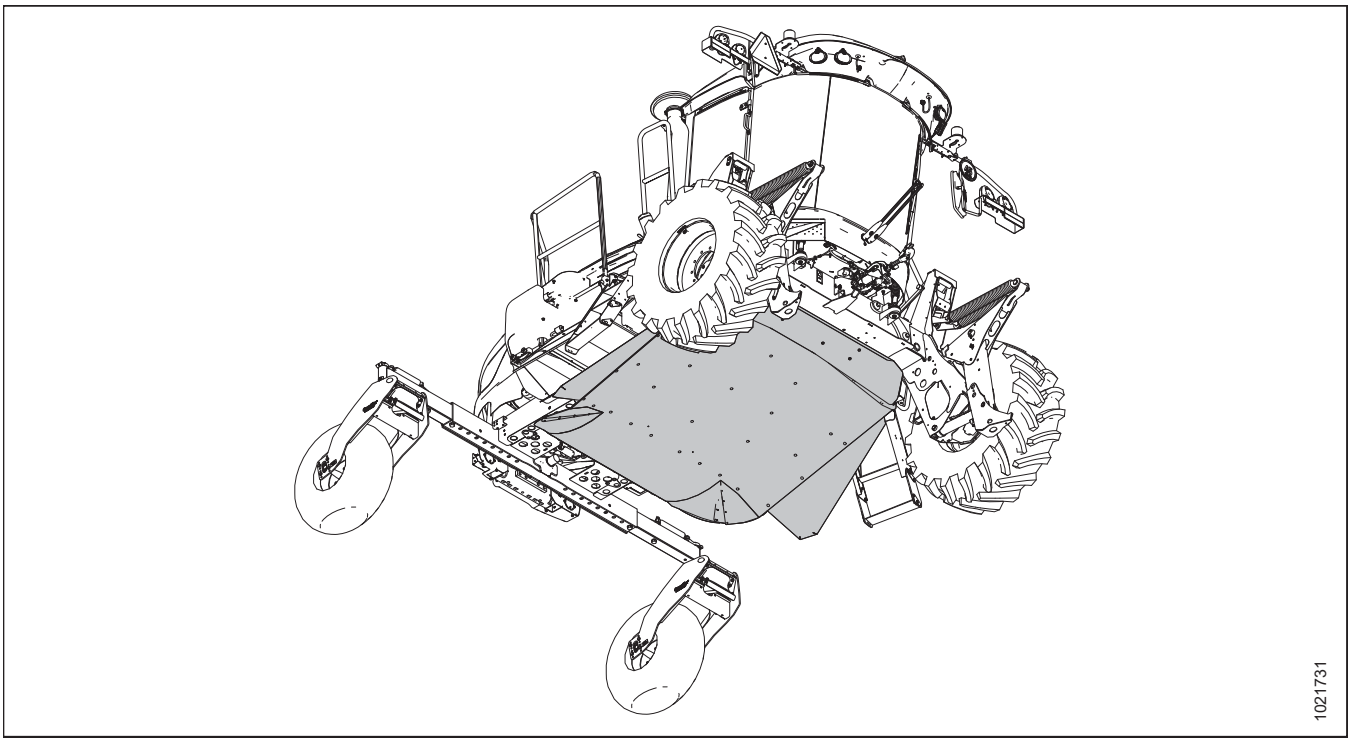
Setup, Operation, and Parts Manual

262826 Revision A

Original Instruction

The Harvesting Specialists.

Swath Compressor for M1 and M2 Series Windrowers



Published August 2024

Introduction

The MacDon Swath Compressor is a large, formed polyethylene sheet designed to mount to the underside of a MacDon M1 or M2 Series Windrower. The swath compressor is designed for use with D1X, D1XL, and D2 Series Draper Headers for Windrowers cutting canola.

Your Machine

The swath compressor shapes the windrow and anchors it into the stubble behind the header to help prevent shelling in ripe conditions and protect the windrow from wind damage. Excessive compression can increase losses from crop shelling and may increase drying time; inadequate compression can leave a windrow prone to wind damage.

The height of the swath compressor can be adjusted and monitored from the cab; adjust the height of the swath compressor for crop ripeness, yield, and the amount of compression required. The swath compressor will automatically lift if the Operator stops and reverses the windrower.

NOTE:

A preferred height setting can be saved under a One-Touch-Return button. For instructions, refer to *3.3.3 Programming One-Touch-Return Buttons, page 51*.

IMPORTANT:

M1170*NT*, M1170*NT5*, and M2170*NT* Windrowers are **NOT** compatible with model year 2022 and prior swath compressors. Model year 2023 and later swath compressors can be used with a windrower in narrow transport mode.

When setting up the machine or making adjustments, review and follow the recommended machine settings in all relevant MacDon publications. Failure to do so may compromise machine function and machine life and may result in a hazardous situation.

If the shipment is damaged or is missing parts, contact the following according to your region:

- North America: *shortageanddamage@macdon.com*
- Australia: *service@macdon.com.au*
- Brazil: *garantia-brasil@macdon.com*
- Europe (except Russia): *ShortageandDamageEU@macdon.com*
- Russia: *shortageanddamage@macdon.com*

Your Warranty

MacDon provides warranty for Customers who operate and maintain their equipment as described in this manual. A copy of the MacDon Industries Limited Warranty Policy, which explains this warranty, should have been provided to you by your Dealer. Damage resulting from any of the following conditions will void the warranty:

- Accident
- Misuse
- Abuse
- Improper maintenance or neglect
- Abnormal or extraordinary use of the machine
- Failure to use the machine, equipment, component, or part in accordance with the manufacturer’s instructions

Your Manual

The following conventions are used in this document:

- M1 and M2 Series Windrowers are Dual Direction®, meaning the windrower can be driven in cab-forward or engine-forward modes. When using the terms right and left in reference to specific locations on the machine, the manual assumes a cab-forward direction.
- Unless otherwise noted, use the standard torque values provided in Chapter *6 Reference, page 75* of this document.

NOTE:

Keep your MacDon publications up-to-date. The most current version can be downloaded from our website (*www.macdon.com*) or from our Dealer-only site (*https://portal.macdon.com*) (login required).

Call your MacDon Dealer if you need assistance, information, or additional copies of this manual.

NOTE:

This manual is currently available in English only.

Summary of Changes

The following list provides an account of major changes from the previous version of this document.

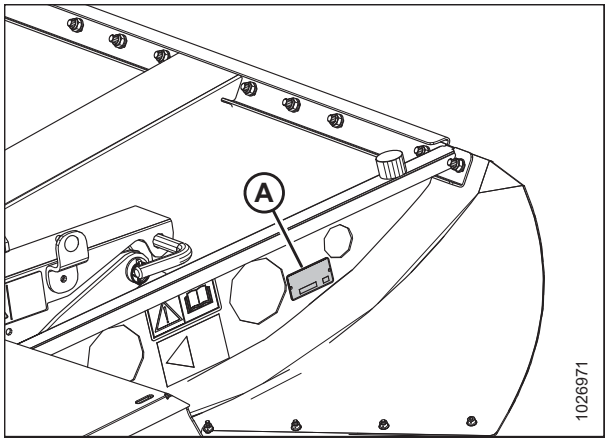
Section	Summary of Change	Internal Use Only
2.1 Removing Swath Compressor from Shipping Crate, page 17	Updated shipping configuration illustration from 1023531 to 1045251.	Technical Publications
2.2.1 Installing Frame, page 20	Added note and rewrote text.	Technical Publications
3.3.1 Swath Compressor Controls, page 47	Rewrote text and reformatted procedure.	Technical Publications
4.1 Removing Shield Assembly, page 53	Changed title and rewrote text.	Technical Publications
4.2.2 Swath Compressor Harness (MD #209256), page 56	Swapped colours of SF2301 and SF2501.	ECN 65854

Serial Number

Record the serial number of the swath compressor in the space below.

Serial Number: _____

Serial number plate (A) is located on the left side of the swath compressor frame.



Serial Number Plate Location

Chapter 1: Safety

Understanding and consistently following safety procedures helps to ensure the safety of machine operators and bystanders.

1.1 Safety Alert Symbols

The safety alert symbol indicates important safety messages 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

Figure 1.1: Safety Symbol

1.2 Signal Words

Three signal words, **DANGER**, **WARNING**, and **CAUTION**, are used to alert you to hazardous situations. Two signal words, **IMPORTANT** and **NOTE**, identify non-safety related information.

Signal words are selected using the following guidelines:

DANGER

Indicates an imminently hazardous situation that, if it is not prevented, will result in death or serious injury.

WARNING

Indicates a potentially hazardous situation that, if it is not prevented, could result in death or serious injury. It may also be used to alert you to unsafe practices.

CAUTION

Indicates a potentially hazardous situation that, if it is not prevented, may result in minor or moderate injury. It may also be used to alert you to unsafe practices.

IMPORTANT:

Indicates a situation that, if not prevented, could result in a malfunction or damage to the machine.

NOTE:

Provides additional information or advice.

1.3 General Safety

Operating, servicing, and assembling machinery presents several safety risks. These risks can be reduced or eliminated by following the relevant safety procedures and wearing the appropriate personal protective equipment.

CAUTION

The following general farm safety precautions should be part of your operating procedure for all types of machinery.

Wear all protective clothing and personal safety devices that could be necessary for the job at hand. Do **NOT** take chances. You may need the following:

- Hard hat
- Protective footwear with slip-resistant soles
- Protective glasses or goggles
- Heavy gloves
- Wet weather gear
- Respirator or filter mask

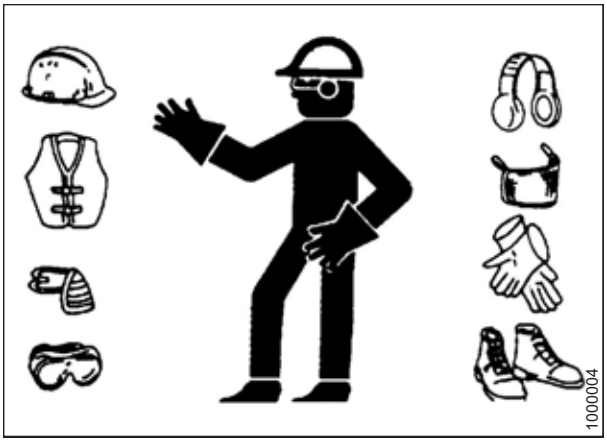


Figure 1.2: Safety Equipment

In addition, take the following precautions:

- Be aware that exposure to loud noises can cause hearing impairment. Wear suitable hearing protection devices such as earmuffs or earplugs to help protect against loud noises.

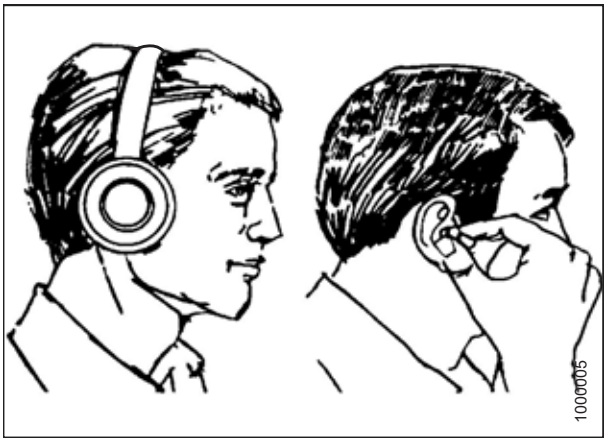


Figure 1.3: Safety Equipment

- Provide a first aid kit in case of emergencies.
- Keep a properly maintained fire extinguisher on the machine. Familiarize yourself with its use.
- Keep young children away from machinery at all times.
- Be aware that accidents often happen when Operators are fatigued or in a hurry. Take time to consider the safest way to accomplish a task. **NEVER** ignore the signs of fatigue.

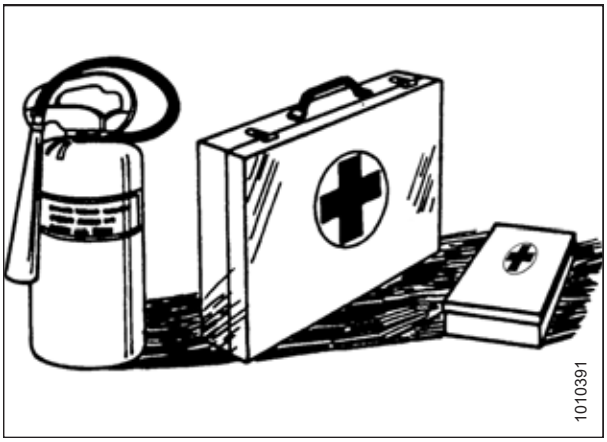


Figure 1.4: Safety Equipment

- Wear close-fitting clothing and cover long hair. **NEVER** wear dangling items such as hoodies, scarves, or bracelets.
- Keep all shields in place. **NEVER** alter or remove safety equipment. Ensure that the driveline guards can rotate independently of their shaft, and that they can telescope freely.
- Use only service and repair parts made or approved by the equipment manufacturer. Parts from other manufacturers may not meet the correct strength, design, or safety requirements.

Figure 1.5: Safety around Equipment

- Keep hands, feet, clothing, and hair away from moving parts. **NEVER** attempt to clear obstructions or objects from a machine while the engine is running.
- Do **NOT** modify the machine. Unauthorized modifications may impair the functionality and/or safety of the machine. It may also shorten the machine's service life.
- To avoid injury or death from the unexpected startup of the machine, **ALWAYS** stop the engine and remove the key from the ignition before leaving the operator's seat for any reason.

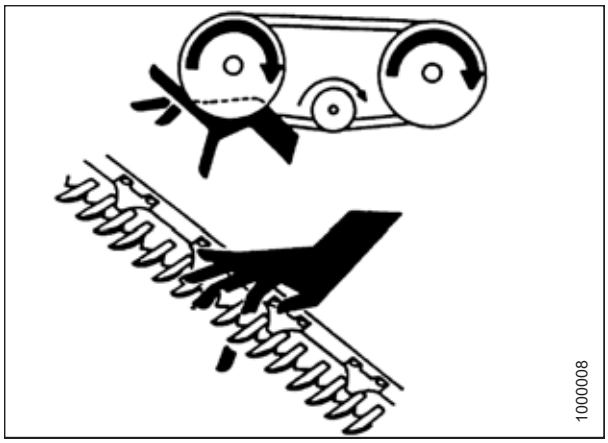


Figure 1.6: Safety around Equipment

- Keep the machine service area clean and dry. Wet and/or oily floors are slippery. Wet spots can be dangerous when working with electrical equipment. Ensure that all electrical outlets and tools are properly grounded.
- Keep the work area well-lit.
- Keep machinery clean. Straw and chaff on a hot engine are fire hazards. Do **NOT** allow oil or grease to accumulate on service platforms, ladders, or controls. Clean machines before they are stored.
- **NEVER** use gasoline, naphtha, or any volatile material for cleaning purposes. These materials may be toxic and/or flammable.
- When storing machinery, cover any sharp or extending components to prevent injury from accidental contact.

Figure 1.7: Safety around Equipment

1.4 Maintenance Safety

Maintaining your equipment safely requires that you follow the relevant safety procedures and wear the appropriate personal protective equipment for the task.

To ensure your safety while maintaining the machine:

- Review the operator's manual and all safety items before operating or performing maintenance on the machine.
- Place all controls in Neutral, stop the engine, set the parking brake, remove the ignition key, and wait for all moving parts to stop before servicing, adjusting, or repairing the machine.
- Follow good shop practices:
  - Keep service areas clean and dry
  - Ensure that electrical outlets and tools are properly grounded
  - Keep the work area well lit

Figure 1.8: Wet Floors Present Safety Risks

- Relieve pressure from hydraulic circuits before servicing and/or disconnecting the machine.
- Ensure that all components are tight and that steel lines, hoses, and couplings are in good condition before applying pressure to hydraulic systems.
- Keep hands, feet, clothing, and hair away from all moving and/or rotating parts.
- Clear the area of bystanders, especially children, when carrying out any maintenance, repairs, or adjustments.
- Install the transport lock or place safety stands under the frame before working under the machine.
- If more than one person is servicing the machine at the same time, be aware that rotating a driveline or another mechanically driven component by hand (for example, accessing a lubricant fitting) will cause drive components in other areas (belts, pulleys, and knives) to move. Stay clear of driven components at all times.

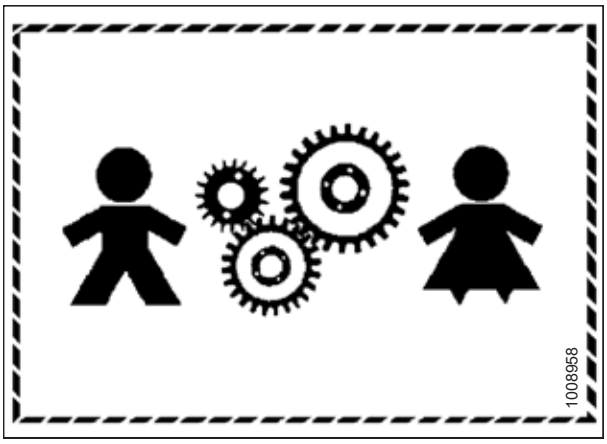


Figure 1.9: Equipment is NOT Safe for Children

- Wear protective gear when working on the machine.
- Wear heavy gloves when working on knife components.

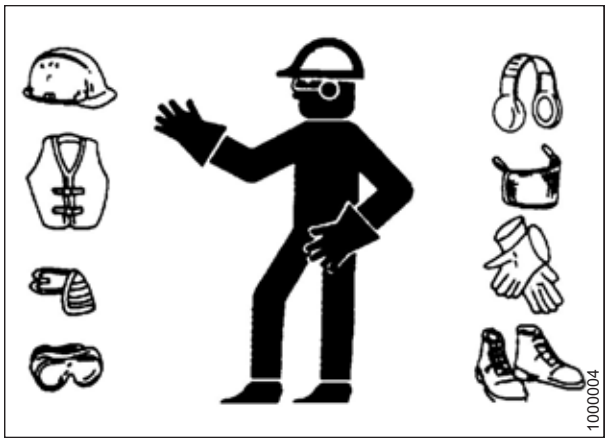


Figure 1.10: Personal Protective Equipment

1.5 Hydraulic Safety

Because hydraulic fluid is under extreme pressure, hydraulic fluid leaks can be very dangerous. Follow the proper safety procedures when inspecting hydraulic fluid leaks and servicing hydraulic equipment.

- Always place all hydraulic controls in **NEUTRAL** before leaving the operator's seat.
- Ensure that all of the components in the hydraulic system are kept clean and in good condition.
- Replace any worn, cut, abraded, flattened, or crimped hoses and steel lines.
- Do **NOT** attempt any makeshift repairs to hydraulic lines, fittings, or hoses by using tapes, clamps, cements, or welding. The hydraulic system operates under extremely high pressure. Makeshift repairs can fail suddenly and create hazardous conditions.

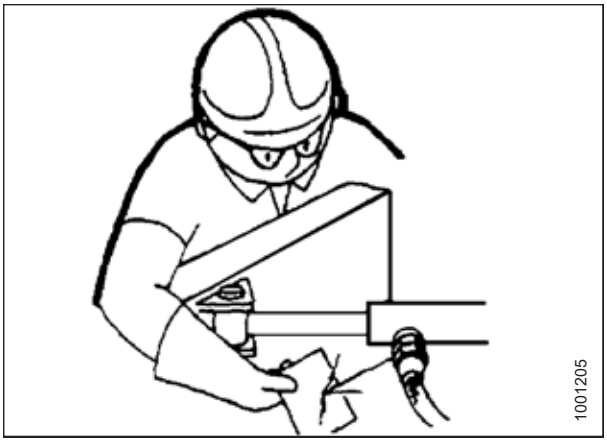


Figure 1.11: Testing for Hydraulic Leaks

- Wear proper hand and eye protection when searching for high-pressure hydraulic fluid leaks. Use a piece of cardboard as a backstop instead of your hands to isolate and identify a leak.
- If you are injured by a concentrated, high-pressure stream of hydraulic fluid, seek medical attention immediately. Serious infection or a toxic reaction can develop from hydraulic fluid piercing the skin.

Figure 1.12: Hydraulic Pressure Hazard

- Ensure that all components are tight and that steel lines, hoses, and couplings are in good condition before applying pressure to a hydraulic system.

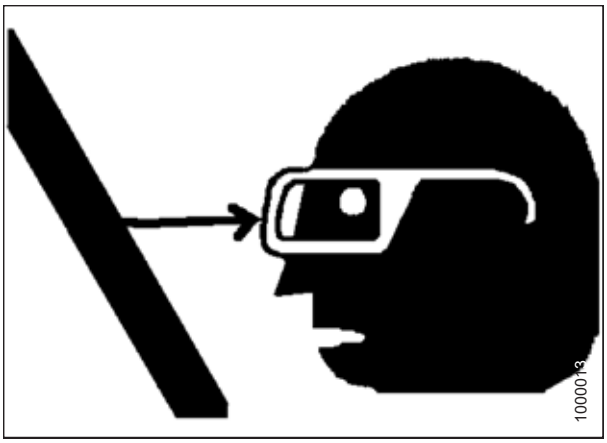


Figure 1.13: Safety around Equipment

1.6 Welding Precautions

Understand these critical precautions before attempting to weld anything on the windrower.

IMPORTANT:

If the procedures below are not followed, the windrower's electronic components may become damaged and fail intermittently. It is harder to diagnose these failures accurately.

Whenever possible, remove electronic components from the windrower instead of leaving them in place.

If welding needs to be performed on a header, disconnect the header completely from the windrower before beginning. These same guidelines apply to plasma cutting or any other high-current electrical operation performed on the machine.

If it is not practical to disconnect the header from the windrower before welding, disconnect the following electrical components from the windrower:

IMPORTANT:

Before disconnecting anything, park the windrower on a level surface, shut down the engine, and remove the key from the ignition.

The following items need to be disconnected:

- Negative battery terminals (A) (two connections)

  IMPORTANT:

  Always disconnect the battery terminals first, and reconnect them last.

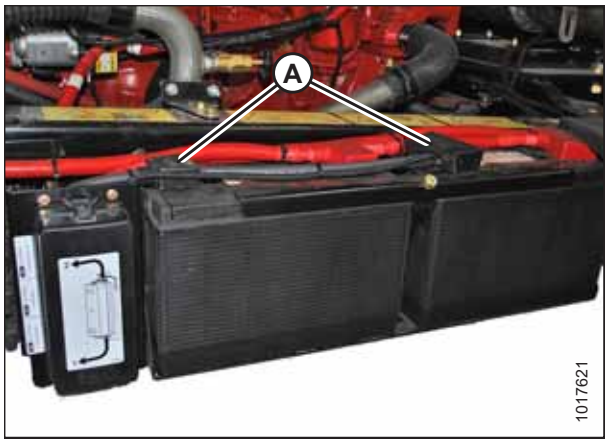


Figure 1.14: Negative Terminals

- Master controller (A) – **M2 Series Windrower**
  Two connectors: P225 and P224

  Location: Behind the cab, near the header lift/fan manifold

  To disconnect a connector, press center red tab (B), to release the latch then lift the latch and pull the connector away from the master controller.

  IMPORTANT:

  When reconnecting the connectors, make sure to latch them in place.

  IMPORTANT:

  Do **NOT** power up or operate the windrower until these connectors are latched into place.

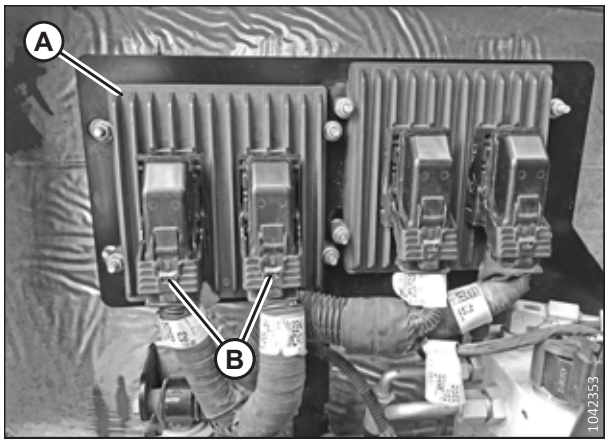


Figure 1.15: Master Controller – M2 Series Windrower

- Firewall extension module (A) – **M2 Series Windrower**
  Two connectors: P227 and P226

  Location: Behind the cab, near the header lift/fan manifold

  To disconnect a connector, press center red tab (B), to release the latch then lift the latch and pull the connector away from the module.

  IMPORTANT:

  When reconnecting the connectors, make sure to latch them in place.

  IMPORTANT:

  Do **NOT** power up or operate the windrower until these connectors are latched into place.

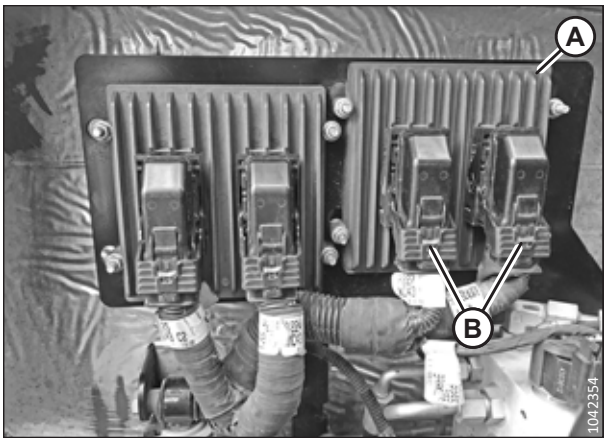


Figure 1.16: Firewall Extension Module – M2 Series Windrower

- Master controller (A) – **M1 Series Windrower**
  Four connectors: P231, P232, P233, and P234

  Location: Behind the cab, near the header lift/fan manifold

  To disconnect the connectors, press the two outer tabs and pull the connector away from the master controller.

  IMPORTANT:

  When reconnecting the connectors, ensure that they are fully seated into the master controller and that the two locking tabs on each end of all four connectors are popped outward. If the tabs are not popped outward, the connector is not fully seated.

  IMPORTANT:

  Do **NOT** power up or operate the windrower until these connectors are locked into place.

Figure 1.17: Master Controller – M1 Series Windrower

- Firewall extension module (A) – **M1 Series Windrower**
  Two connectors: P235 and P236

  Location: Behind the cab, near the header lift/fan manifold

  To disconnect the connectors, insert the end of a a small 3–6 mm (1/8–1/4 in.) blade screwdriver into the connector's locking tab.

  Gently pry upward (no more than 6 mm [1/4 in.]) to unlock the connector tab, then pull the connector away from the module.

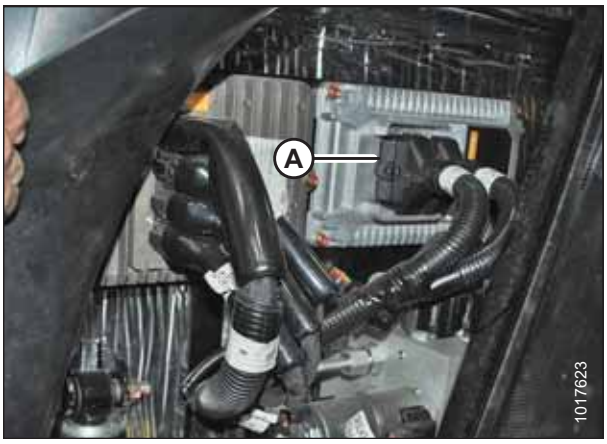


Figure 1.18: Firewall Extension Module – M1 Series Windrower

- Chassis extension module (A) – **M1 Series Windrower**
  Two connectors: P247 and P248

  Location: Under the cab, inside the left frame rail

  To disconnect the connectors, insert the end of a small 3–6 mm (1/8–1/4 in.) blade screwdriver into the connector's locking tab.

  Gently pry upward (no more than 6 mm [1/4 in.]) to unlock the connector tab, then pull the connector away from the module.

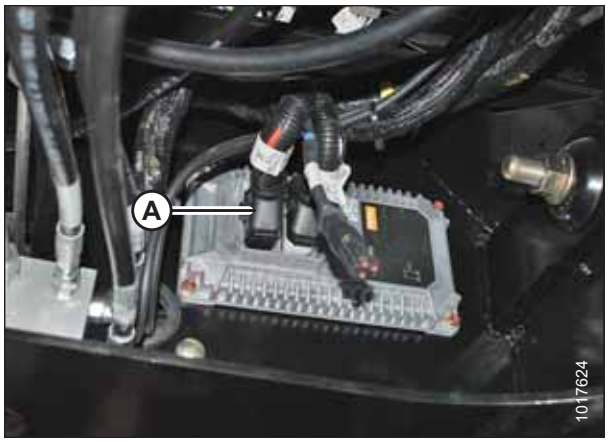


Figure 1.19: Chassis Extension Module – M1 Series Windrower

- Engine Control Module (ECM)
  Two connectors for Cummins: P100 (A) and J1 Cummins Proprietary ECM Connector (B)

  Location: On the engine

  To disconnect the connectors, pull the rubber boot off the cover, unlock the latch, and undo the main over-center latch. Remove strain relief bolts (C) so that the connectors can be pulled away from the module.

  IMPORTANT:

  Disconnect both connectors. Note the connector locations for reinstallation.

  IMPORTANT:

  Reconnect the connectors in the proper locations. Do **NOT** cross connect the connectors.

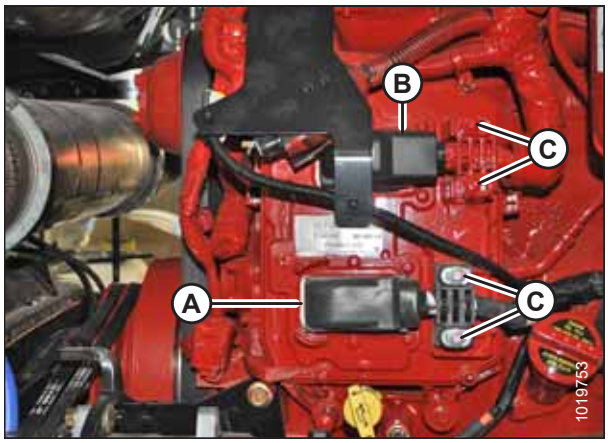


Figure 1.20: Engine Control Module

- Cab connectors (A)
  Two round connectors: C1 and C2

  Location: Under the cab

  NOTE:

  To disconnect circular Deutsch connectors, rotate the outer collar counterclockwise.

  IMPORTANT:

  To connect circular Deutsch connectors without bending the pins, fully align the plug with the receptacle before pressing the connector in.

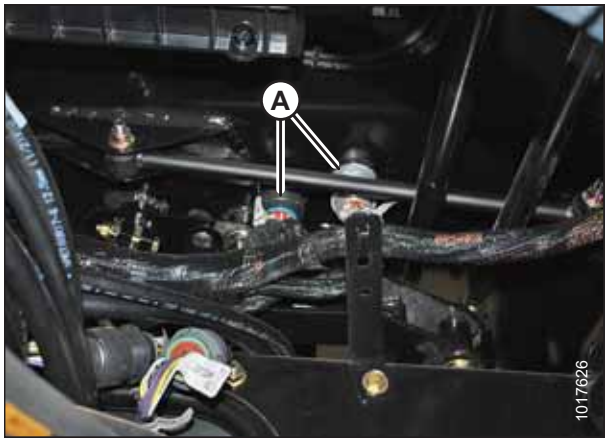


Figure 1.21: Cab Connectors

- Roof connectors (A)
  Four connectors: C10, C12, C13, and C14

  Location: Under the cab at the base of the left cab post

  NOTE:

  To disconnect circular Deutsch connectors, rotate the outer collar counterclockwise.

  IMPORTANT:

  To connect circular Deutsch connectors without bending the pins, fully align the plug with the receptacle before pressing the connector in.

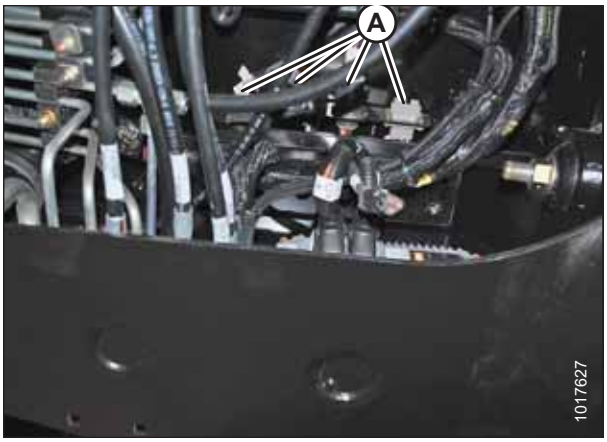


Figure 1.22: Roof Connectors

- Chassis relay module (A)
  Three connectors: P240, P241, and P242

  Location: Outside the left frame rail near the batteries

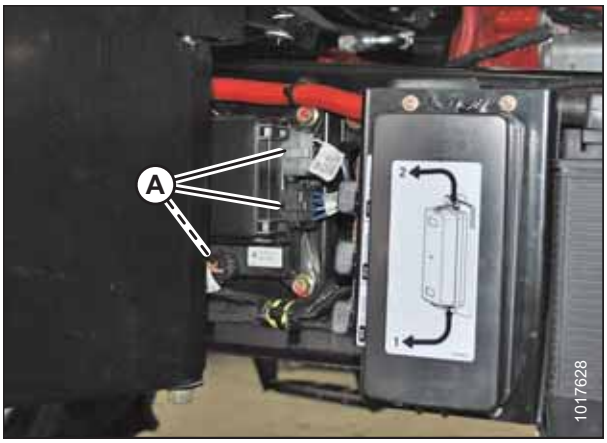


Figure 1.23: Chassis Relay Module

- Engine harness (A)
  Two round connectors: C30 and C31

  Location: Inside the left frame rail, at the rear of the windrower

  NOTE:

  To disconnect circular Deutsch connectors, rotate the outer collar counterclockwise.

  IMPORTANT:

  To connect circular Deutsch connectors without bending the pins, fully align the plug with the receptacle before pressing the connector in.

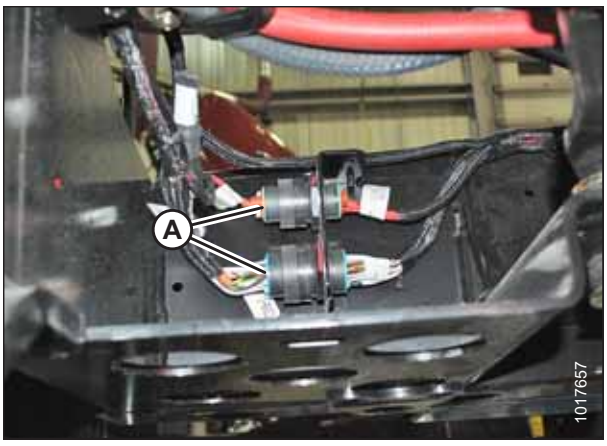


Figure 1.24: Engine Harness

- Air conditioning (A/C) box connectors (A)
  Two connectors: C15 and C16

  Location: Rear of the A/C box

  NOTE:

  To disconnect circular Deutsch connectors, rotate the outer collar counterclockwise.

  IMPORTANT:

  To connect circular Deutsch connectors without bending the pins, fully align the plug with the receptacle before pressing the connector in.

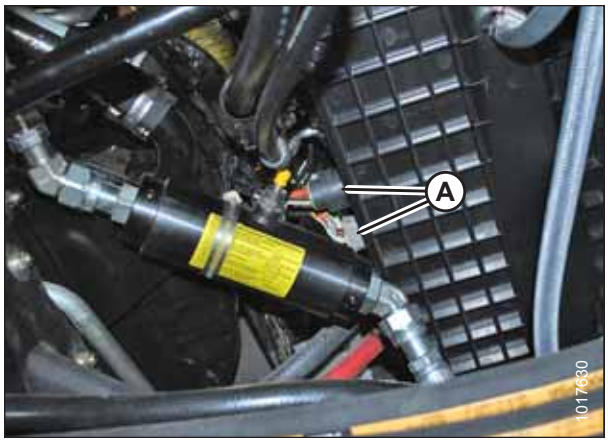


Figure 1.25: A/C Box Connectors

- Wheel motor connectors (A)
  Two round connectors: C25 and C26

  Location: Under the center of the frame, just behind the front cross member

  NOTE:

  To disconnect circular Deutsch connectors, rotate the outer collar counterclockwise.

  IMPORTANT:

  To connect circular Deutsch connectors without bending the pins, fully align the plug with the receptacle before pressing the connector in.

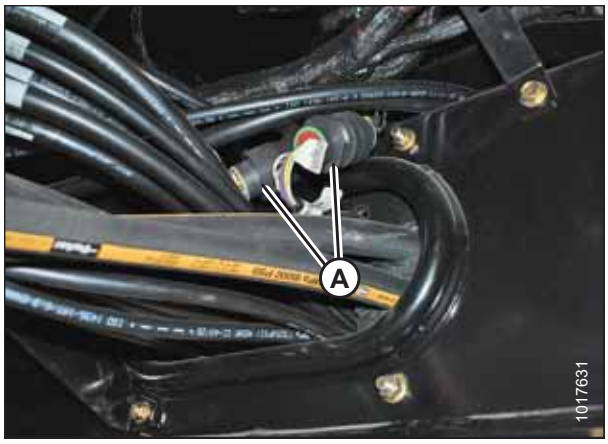


Figure 1.26: Wheel Motor Connectors

To align round connectors:

1. Observe the channel cuts and mating channel protrusions on the inner part of the circular walls of the connectors.
2. Face the mating connectors towards each other, and rotate the connectors so that the channels are aligned.
3. Press the connectors together while turning the outer connector clockwise until the collar locks.

1.7 Safety Signs

Safety signs are decals placed on the machine where there is a risk of personal injury, or where the Operator should take extra precautions before operating the controls. They are usually yellow.

- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or illegible.
- If the original part on which a safety sign was installed is replaced, ensure that the repair part displays the current safety sign.
- Replacement safety signs are available from your Dealer.

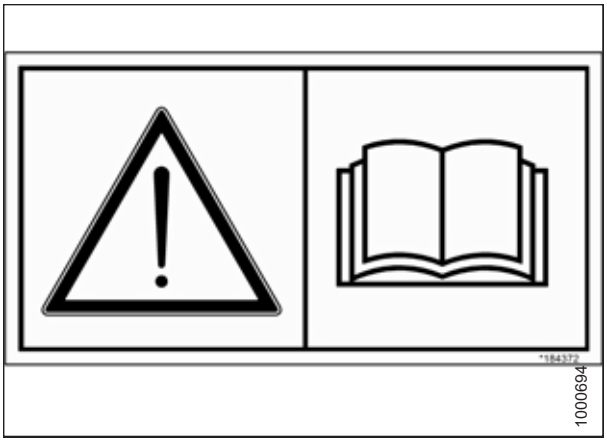


Figure 1.27: Operator's Manual Decal

1.7.1 Installing Safety Decals

Worn or damaged safety decals will need to be removed and replaced.

1. Decide exactly where you are going to place the decal.
2. Clean and dry the installation area.
3. Remove the smaller portion of the split backing paper.
4. Place the decal in position and slowly peel back the remaining paper, smoothing the decal as it is applied.
5. Prick small air pockets with a pin and smooth them out.

1.8 Understanding Safety Signs

Refer to this section to learn the hazards that each type of safety decal denotes.

MD #184372

General hazard pertaining to machine operation and servicing

DANGER

To prevent injury or death from the improper or unsafe operation of the machine:

- Read the operator's manual and follow all safety instructions. If you do not have a manual, obtain one from your Dealer.
- Do **NOT** allow untrained persons to operate the machine.
- Review these safety instructions with all machine Operators every year.
- Ensure that all safety signs are installed and are legible.
- Make certain that bystanders are clear of the header before starting the engine and during operation of the header.
- Keep riders off of the machine.
- Keep all shields in place. Stay clear of moving parts.
- Disengage the header drive, put the transmission into Neutral, and wait for all movement to stop before leaving the operator's position.
- Stop the engine and remove the key from the ignition before servicing, adjusting, lubricating, cleaning, or unplugging the machine.
- Before servicing a header in the raised position, engage the cylinder safety props.
- Display a slow-moving vehicle emblem and activate the header's warning lights when operating the header on roadways (unless these actions are prohibited by law).

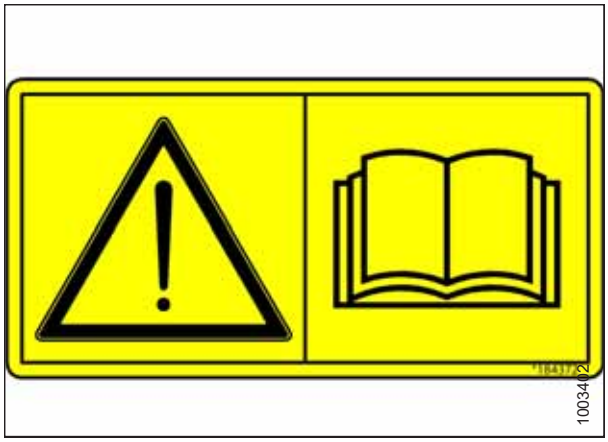


Figure 1.28: MD #184372

MD #166466

High-pressure oil hazard

WARNING

High-pressure hydraulic fluid can penetrate human skin, which can cause serious injury such as gangrene, which can be fatal. To prevent this:

- Do **NOT** go near hydraulic fluid leaks.
- Do **NOT** use a finger or skin to check for hydraulic fluid leaks.
- Lower the load or relieve the pressure in the hydraulic system before loosening any hydraulic fittings.
- If you are injured, seek emergency medical help. **IMMEDIATE** surgery is required to remove hydraulic fluid which has penetrated the skin.

Figure 1.29: MD #166466

MD #174683

Pinch point hazard

CAUTION

To prevent injury:

- Do **NOT** reach into the pinch area.

Figure 1.30: MD #174683

MD #291638

Lock – swath compressor deck

DANGER

To prevent injury:

- Engage the lock when the swath compressor is not in use.
- Lock the compressor shield before servicing or working under the windrower.
- Lock the compressor shield before operating in engine-forward mode.

Figure 1.31: MD #291638

Chapter 2: Installation Instructions

To unpack and install the swath compressor, follow these procedures in order.

2.1 Removing Swath Compressor from Shipping Crate

Follow these steps to unpack the swath compressor from the shipping crate. Retain all parts for installation unless you have been instructed to discard them.

1. Remove and discard top cross members (A) from the shipping crate.

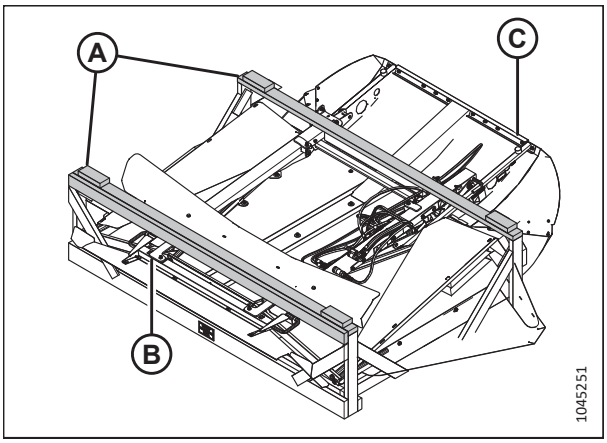


Figure 2.1: Shipping Configuration

A - Cross Members **B - Front** **C - Rear**

2. Remove and retain four bolts (A) securing deflector (B) to the left and right supports, and remove deflector (B). Retain the deflector and the hardware.

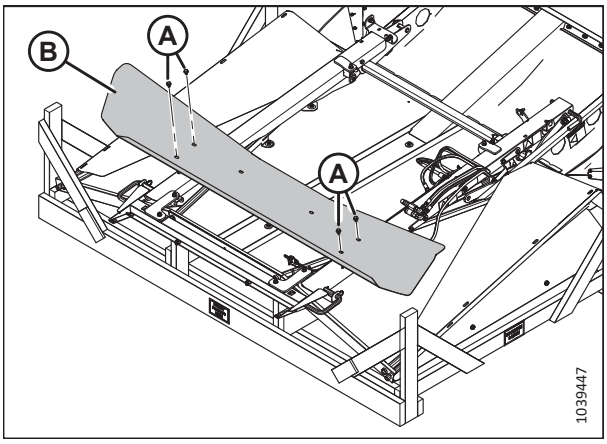


Figure 2.2: Front Deflector

3. Remove and retain four bolts and nuts (A), two bar clamps (B), and front support (C).

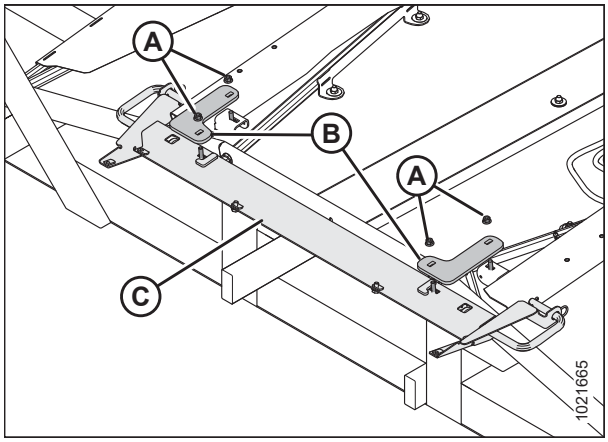


Figure 2.3: Front Pivot Support

4. Remove and retain bolts and nuts (B) securing front support (A) to the left and right supports.
5. Remove and retain hairpins (C) from pivot pins (D) and pull the pivot pins to disengage them from the side supports.
6. Remove and retain front support (A).

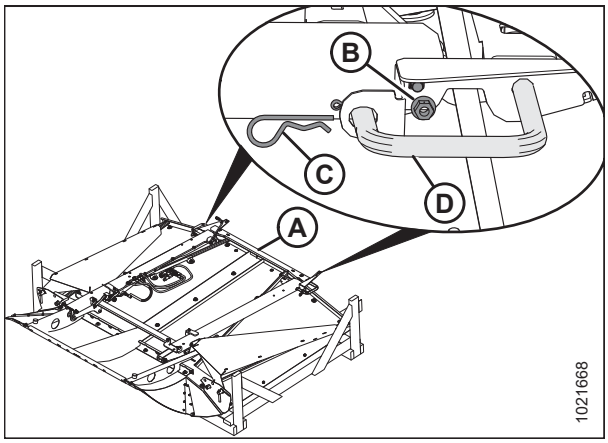


Figure 2.4: Front Pivot Support

7. Remove nut and bolt (A) and pivot pin (B) from the left support.

   NOTE:

   If necessary, loosen handle (C) and adjust the deflector to remove pin (B).

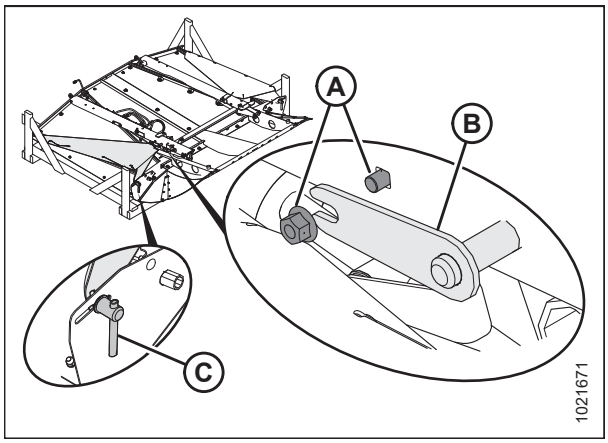


Figure 2.5: Left Support

8. Release latch (A) and remove left support (B), including the cylinder and the hydraulic hoses.
9. Remove the shipping wire securing the hoses to the support.

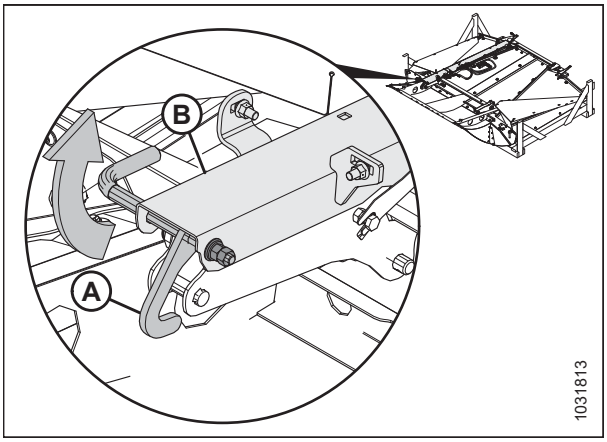


Figure 2.6: Left Support

10. Remove nut and bolt (A) and pivot pin (B) from the right support.

    NOTE:

    If necessary, loosen handle (C) and adjust the deflector to remove pin (B).

11. Remove and retain right support (D).

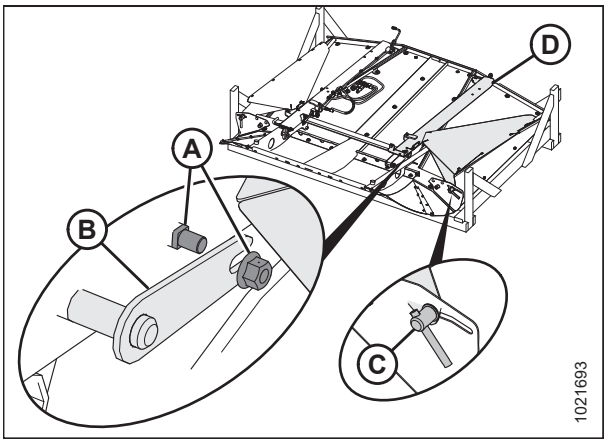


Figure 2.7: Right Support

12. Remove and retain rock shaft (A).
13. Remove four lag screws (B) securing the swath compressor to the shipping crate. Discard the screws.
14. Leave the swath compressor on the shipping pallet.

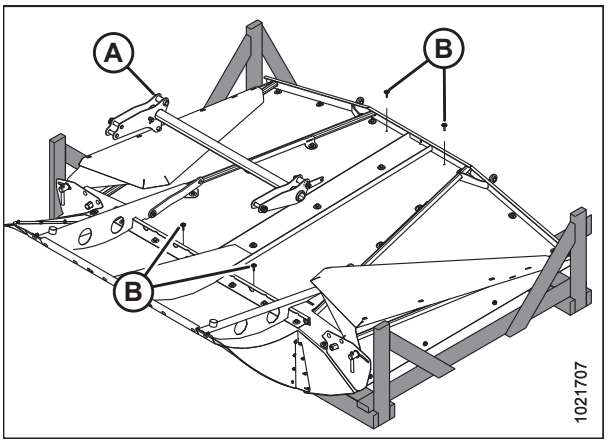


Figure 2.8: Rock Shaft

2.2 Installing Swath Compressor

Follow these steps to install the swath compressor onto an M1 or M2 Series Windrower. The swath compressor weighs approximately 180 kg (400 lb.).

2.2.1 Installing Frame

The swatch compressor frame consists of the front, left, and right supports, and the rock shaft. These parts were unpacked from the shipping crate in the previous procedure.

NOTE:

Do **NOT** tighten the hardware until you are instructed to do so.

1. Loosely attach bar clamps (A) to each side of the front support with two M10 bolts and nuts (B).

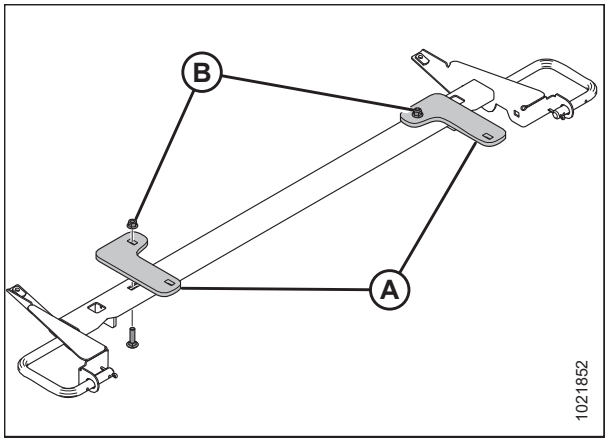


Figure 2.9: Front Support

2. At the cab end of the windrower, position front support (A) below the windrower frame and adjust bar clamps (C) to hold the support in place.
3. Tighten bolts (B) sufficiently to hold the support.

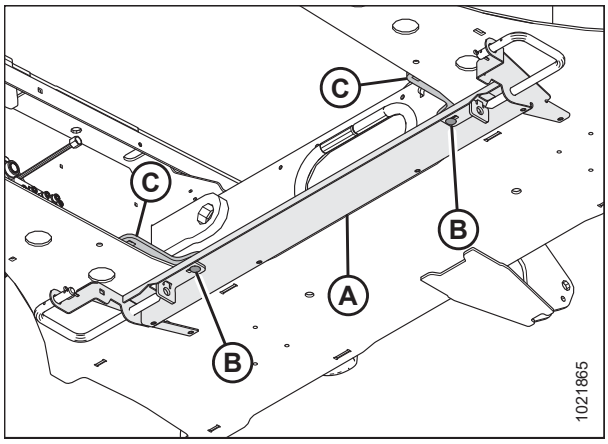


Figure 2.10: Front Support on Windrower Frame

4. Loosen clamps (A) at the rear of the left and right supports.

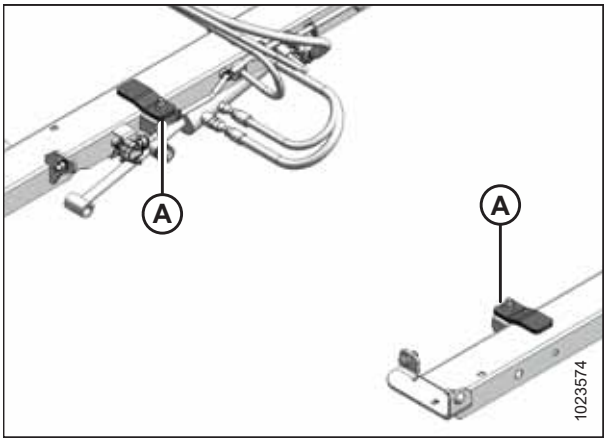


Figure 2.11: Left and Right Supports

5. Position left support (A) onto the left side of the windrower frame as shown.
6. Temporarily clamp the support in position by tightening bar clamp (B) and hardware (C).

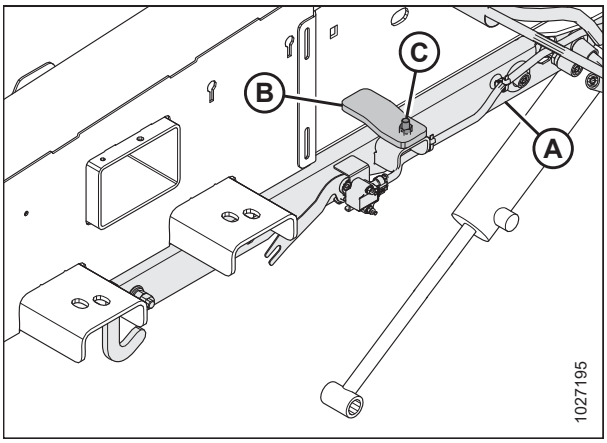


Figure 2.12: Left Support

7. Install 35 mm bolt (B) through the bar clamp and left support (A). Secure the bolt with an M10 nut, but do not fully tighten the nut.
8. Install 20 mm bolt (C) through left support (A) and front support (D). Secure the bolt with an M10 nut, but do not fully tighten the nut.

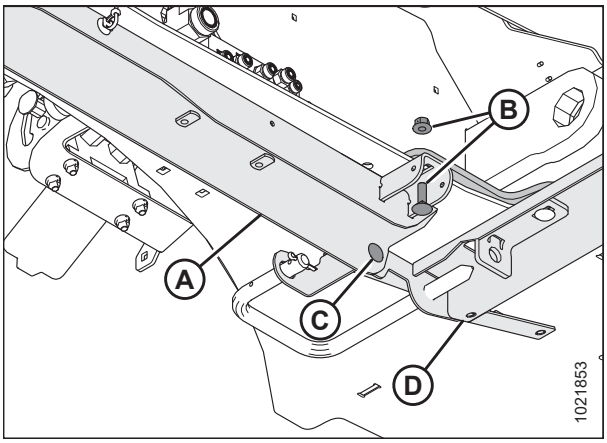


Figure 2.13: Left Support

9. Secure the rear of left support (A) to the windrower frame by installing 35 mm bolts (B) and (C) through the support and the frame. Secure the bolts with M10 nuts, but do not fully tighten them.

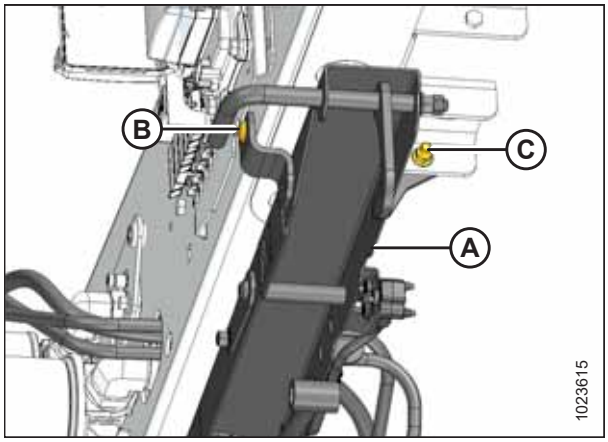


Figure 2.14: Left Support

10. Remove and discard bolt and nut (A) securing air cleaner support (B) to windrower frame (C).

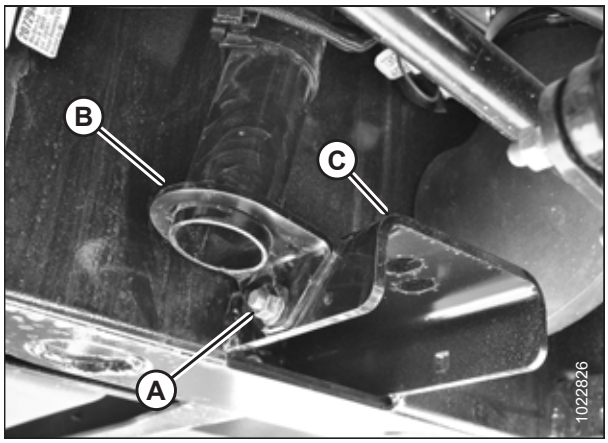


Figure 2.15: Air Cleaner Support

11. Secure the front end of right support (A) to the windrower frame by installing 35 mm bolt and nut (B) through the support and bar clamp (C). Do **NOT** fully tighten the nut.

12. Install 20 mm bolt (D) through the right support and the front support. Secure the bolt with an M10 nut, but do not fully tighten the nut.

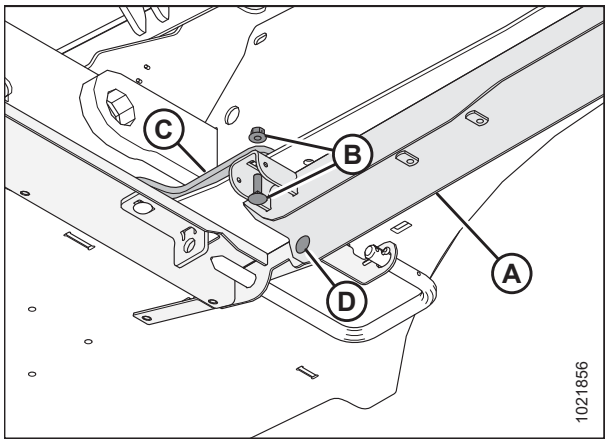


Figure 2.16: Right Support

13. Position air cleaner support (A) between the windrower frame and right rear support (B).

14. Secure the support with 35 mm bolt and nut (C). The bolt head faces aft.

15. Secure right support (B) to the inside of the windrower frame using bar clamp (D) and 35 mm bolt (E). Secure the bolt with an M10 nut, but do not fully tighten the nut.

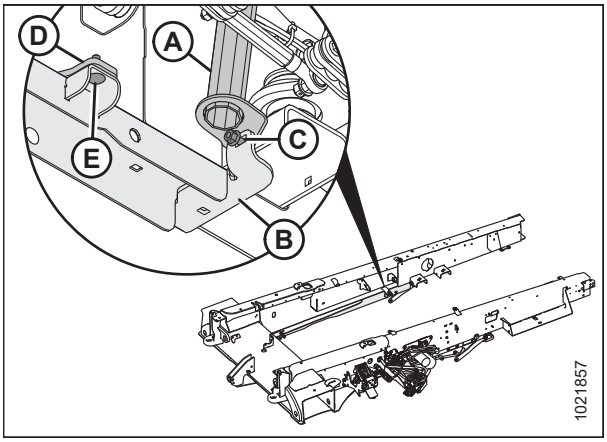


Figure 2.17: Right Support

16. Secure the aft end of right support (A) to the frame using 35 mm bolt (B). Secure the bolt with an M10 nut, but do not fully tighten the nut.

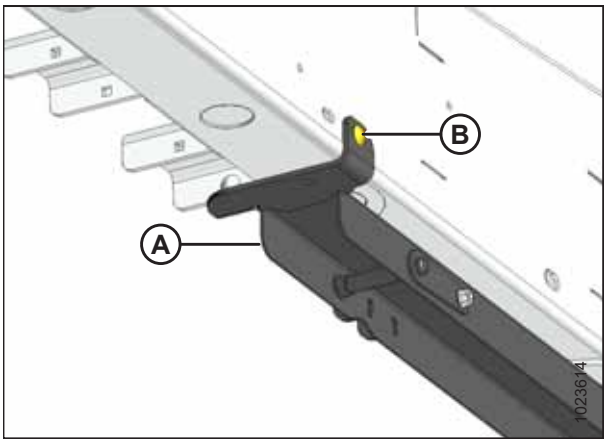


Figure 2.18: Right Support

17. Position rock shaft lift (A) inside the left and right support channels.

18. Install pivot pins (B) on both sides of the rock shaft lift.

19. Secure pivot pins (B) to the windrower frame with 20 mm bolts and nuts (C). Tighten the bolts.

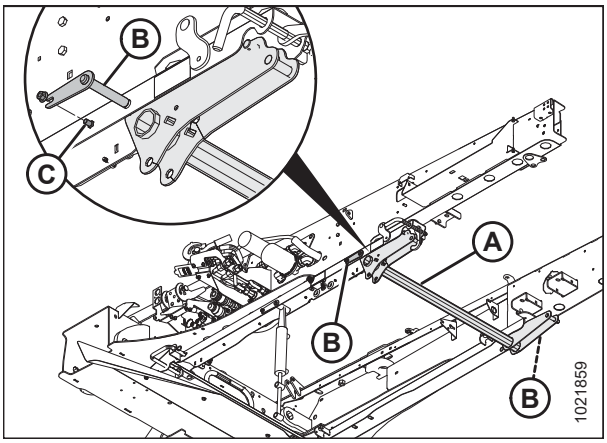


Figure 2.19: Rock Shaft

20. On the left side of the rock shaft lift, ensure that sensor arm (A) engages bolt (B).

    NOTE:

    Ensure that the sensor arm is not bent or damaged.

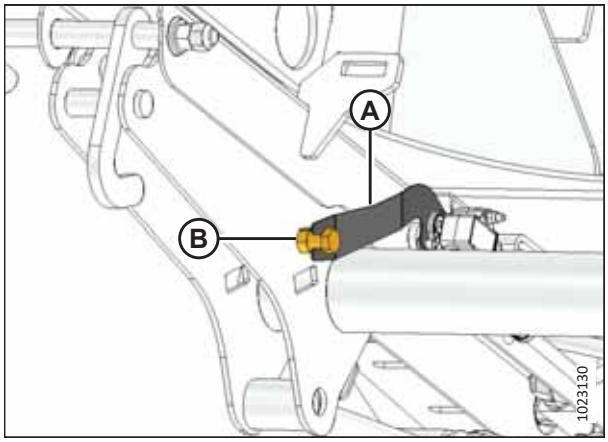


Figure 2.20: Sensor on Left Support

21. Torque six bolts (A) attaching the supports to the windrower frame to 39 Nm (29 lbf·ft).

22. Torque two bolts (B) attaching the side supports to the front support to 39 Nm (29 lbf·ft).

23. Ensure that front clamps (C) engage the windrower frame as much as possible. Torque four bolts (D) to 39 Nm (29 lbf·ft).

24. Ensure that rear clamps (E) engage the windrower frame as much as possible. Torque two bolts (F) to 39 Nm (29 lbf·ft).

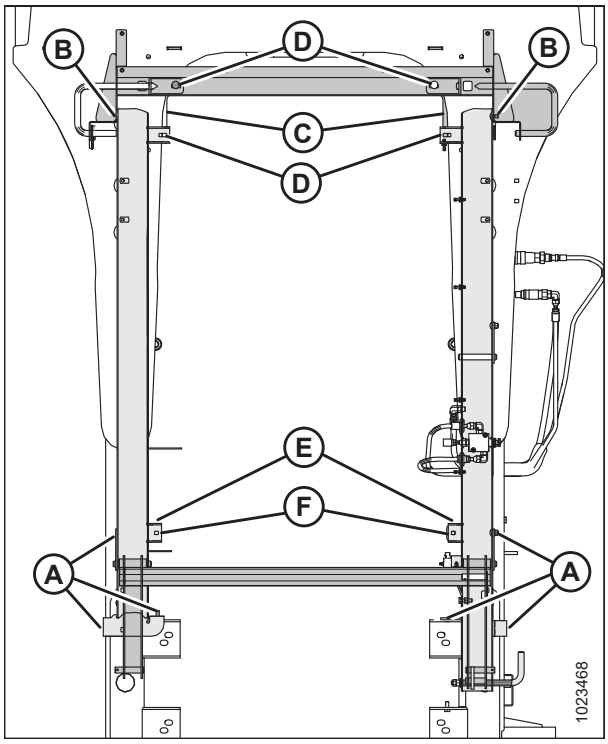


Figure 2.21: View from below Windrower

25. Install cable tie (B) (provided in the manual bag) around sensor harness (A) and the connector at the base of the fuel filter as shown. Ensure that the cable tie is over the harness loom and that a slight amount of slack remains in the wires to the connector.

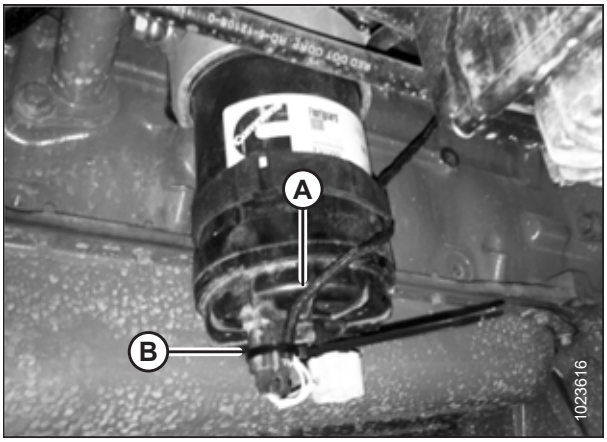


Figure 2.22: Fuel Filter Sensor Wire

2.2.2 Installing Electrical Harness

The electrical harness included with the swath compressor needs to be connected to connector P729 on the windrower chassis harness.

1. Locate three-pin electrical connector P729 (A) above the front cross member of the windrower frame.
2. Cut cable tie (B) securing P729 (A) to the larger electrical harness.

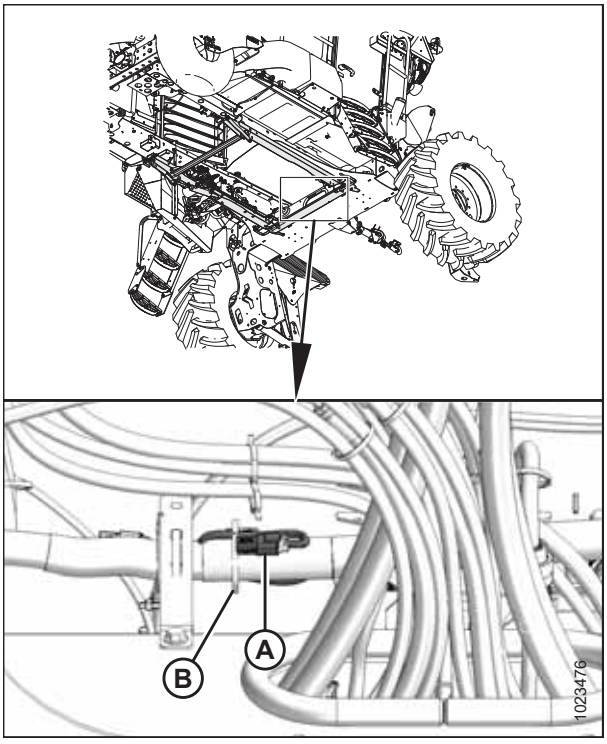


Figure 2.23: Windrower Electrical Harness

3. Route swath compressor harness (A) to P729 above the front cross member and connect the harness to P729. Secure the harness to the frame with a cable tie.

   NOTE:

   Connector P288 is near connector P729. Ensure that you use the correct connector.

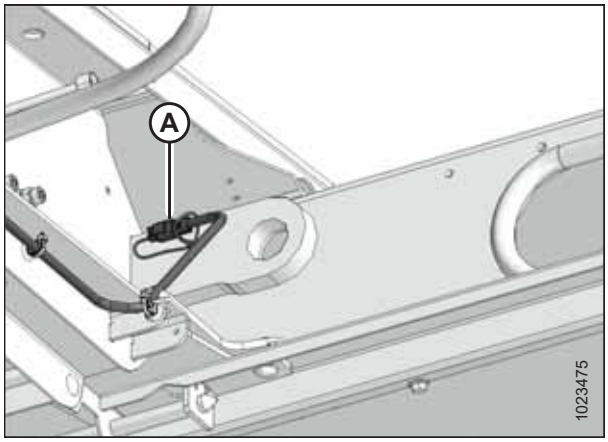


Figure 2.24: Windrower Electrical Harness

2.2.3 Connecting Hydraulics

The hydraulic hoses included with the swath compressor need to be connected to the windrower to allow the Operator to raise and lower the swath compressor from the windrower cab.

M1170 (2017 and earlier) hose routing

1. Route hydraulic hoses (A) under the windrower frame, and between shield support (B) and hydraulic cylinder (C).

   IMPORTANT:

   Avoid pinching the hoses.

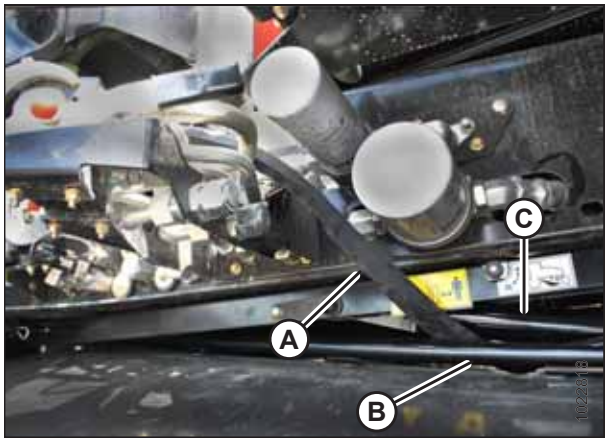


Figure 2.25: M1170 Hose Routing – 2017 and Earlier

M1 (2018 and later) and M2 Series hose routing

2. Route hydraulic hoses (A) through the opening in the left side of the windrower frame.

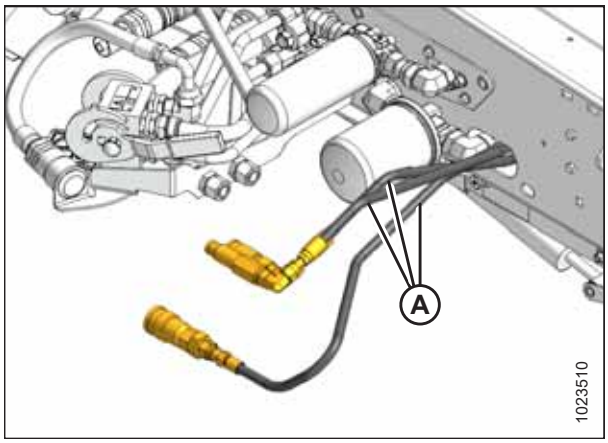


Figure 2.26: M1 (2018 and Later) and M2 Series Hose Routing

DANGER

Ensure that all bystanders have cleared the area.

3. Press LOWER switch (A) for five seconds to relieve pressure behind the couplers.

4. Shut down the engine, and remove the key from the ignition.

Figure 2.27: Windrower Console Switches

M1170 (2017 and earlier) hose connections

5. Route the hoses under the filters and connect the hydraulic couplers as follows:

   - Hose with male coupler to female connector (A)
   - Hose with (smaller) female coupler to male connector (B)
   - Hose with (larger) female coupler to male connector (C)

6. Position hose sheath (D) so that the sheath contacts the fittings. Secure the sheath at both ends with the cable ties supplied in the manual bag.

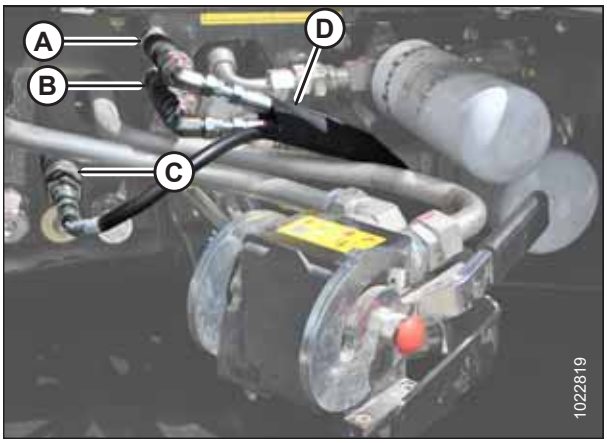


Figure 2.28: M1170 Hose Connections – 2017 and Earlier

M1 (2018 and later) and M2 Series hose connections

7. Connect the hydraulic couplers as follows:

   - Hose with male coupler to female connector (A)
   - Hose with (smaller) female coupler to male connector (B)
   - Hose with (larger) female coupler to male connector (C)

8. Position hose sheath (D) so that the sheath contacts the coupler fittings. Secure the sheath at both ends with the cable ties supplied in the manual bag.

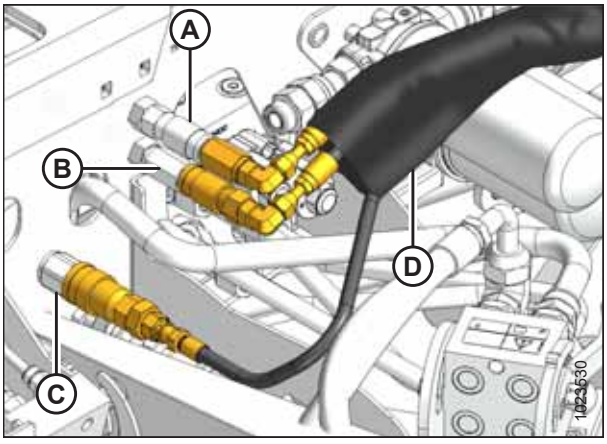


Figure 2.29: M1 (2018 and Later) and M2 Series Hose Connections

2.2.4 Installing Shield Assembly

The shield assembly attaches to the frame of the swath compressor.

1. Start the engine and raise the header legs.
2. Press LOWER button (A) to fully retract the swath compressor cylinder.
3. Shut down the engine, and remove the key from the ignition.

Figure 2.30: Windrower Console Buttons

4. Position the forklift with the forks over the front of the shield assembly, and attach lifting straps (A) through the front and the back of the shield frame.
5. Lift the shield assembly out of the shipping crate.

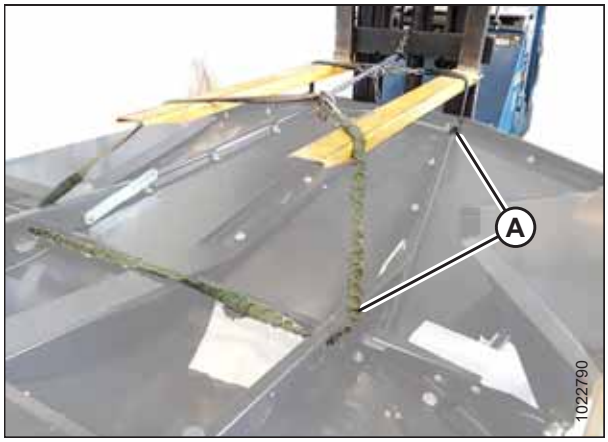


Figure 2.31: Lifting Swath Compressor Shield

6. Approach the windrower from the front and move shield (A) under the windrower.
7. Lower the shield to the ground and remove the lifting straps from the shield.
8. Back the forklift clear of the windrower.

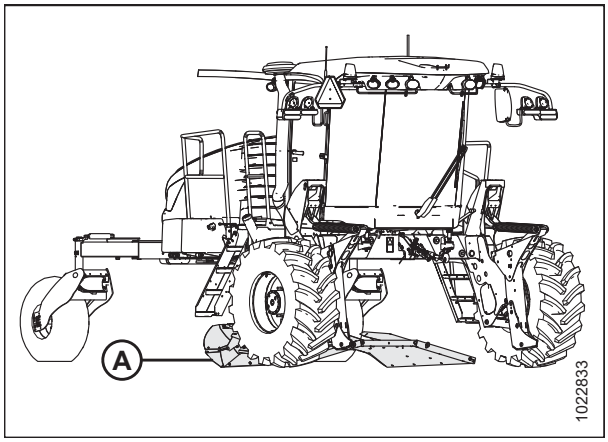


Figure 2.32: Compressor Shield under Windrower

9. To connect the lowering arms easily, turn lock handle (A) counterclockwise and rotate rock shaft (B) so that the supports are vertical.

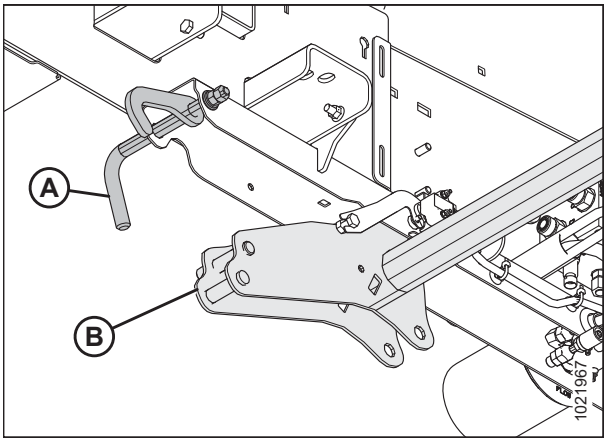


Figure 2.33: Rock Shaft and Lock

10. Ensure that bushings (A) are installed onto pins (B) on both sides of the rock shaft.
11. Position a floor jack or an equivalent device under shield cross member (C).
12. Raise the shield with the device and align lowering arm (D) with pin (B) on rock shaft (G).
13. Secure lowering arm (D) to rock shaft (G) with washer (E) and lynch pin (F). Repeat this step on the opposite side of the shield.
14. Lower the jack and remove it from the work area.

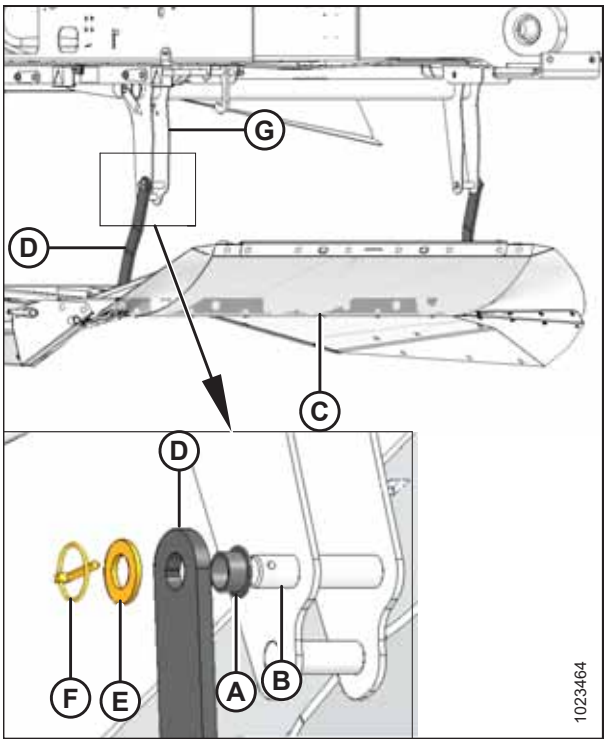


Figure 2.34: Shield Installation

15. Loosen handle (A) and remove three bolts and nuts (B) from side deflector (C). Retain the bolts and the nuts.

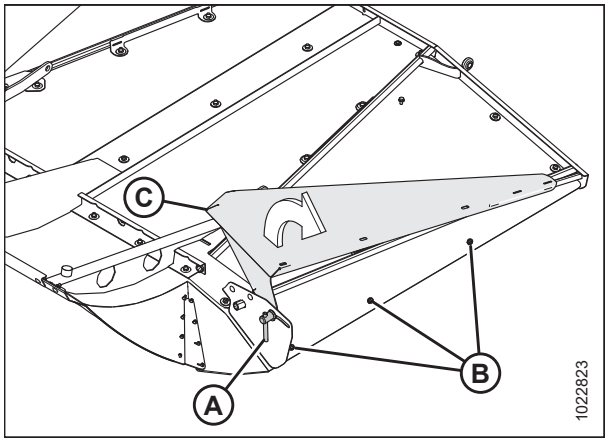


Figure 2.35: Side Deflector Shipping Position

16. Rotate side deflector (A) to working position, and reinstall three nuts and bolts (B). Install the bolts with their heads facing the crop.

    IMPORTANT:

    When an M1170*NT*, M1170*NT5*, or M2170*NT* is in narrow transport mode, the side deflectors can contact the stairs if the deflectors are positioned fully outboard.

17. Torque the nuts to 22 Nm (16.2 lbf·ft [195 lbf·in]).

18. Position the side deflector and tighten adjustment handle (C).

19. Repeat Step *15, page 30* to Step *18, page 30* on the opposite side deflector.

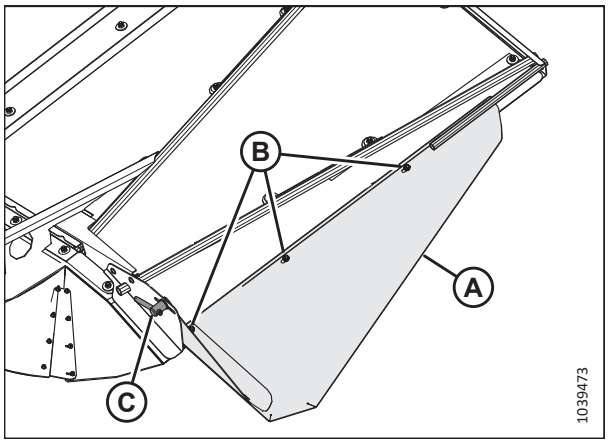


Figure 2.36: Side Deflector Working Position

20. Push down on rear of shield (A) and have someone else lift front of shield (D).

21. At front of shield (D), align ball joints (C) with pins (B) and insert pins (B).

    NOTE:

    Use a rubber mallet if the pins are difficult to install.

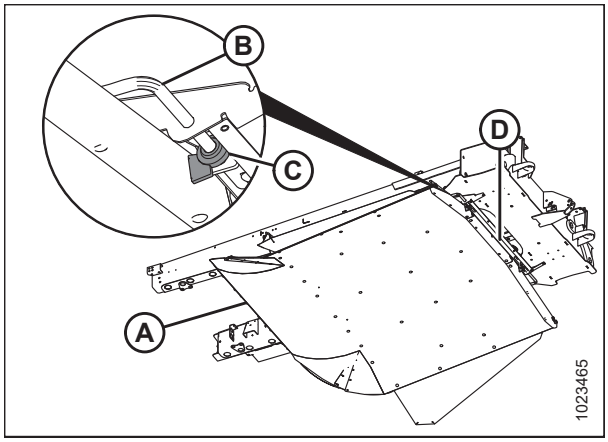


Figure 2.37: Front Pivot Pins

22. Secure pivot pin (B) with hairpin (A). Secure the pivot pin on the opposite side of the shield.

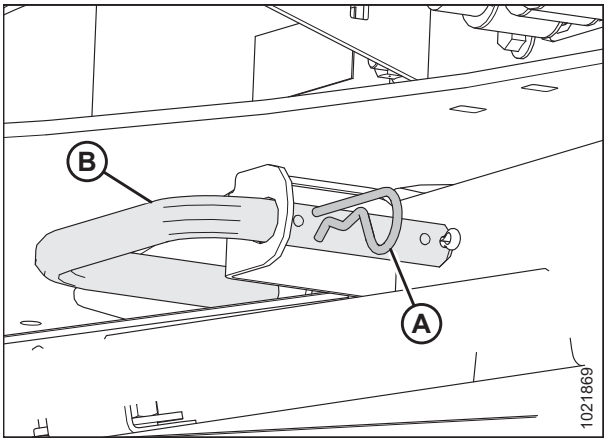


Figure 2.38: Front Pivot Pins

23. Align the rod end of hydraulic cylinder (A) with the holes in the rock shaft. Secure the cylinder with pin (B).

    NOTE:

    Ensure that the plate on the pin engages slot (E) in the rock shaft support.

24. Secure the pin with washer (C) and lynch pin (D).

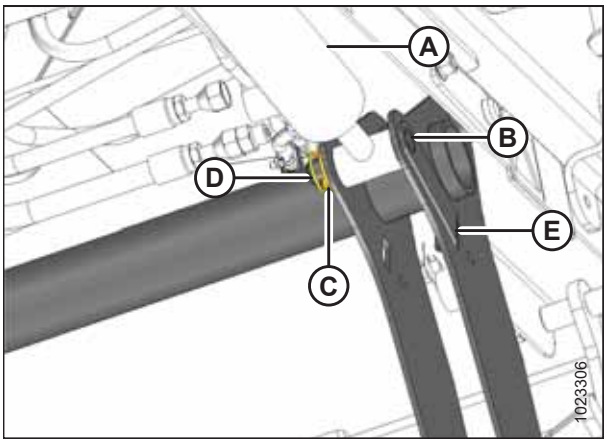


Figure 2.39: Rock Shaft

25. Remove two bolts (C) that interfere with the deflector. Do **NOT** discard the bolts.
26. Position front deflector (A) onto front support (B).
27. Reinstall two bolts (C) and four bolts (D) to secure deflector (A) to the support.
28. Center the deflector to the main shield and tighten the bolts.

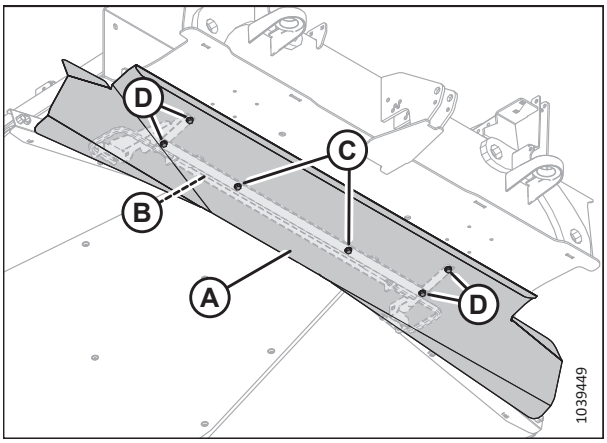


Figure 2.40: Front Deflector — View from below Shield

Chapter 3: Operation

Safely operating your machine requires familiarizing yourself with its capabilities.

3.1 Activating Swath Compressor – M1 Series Windrowers

The swath compressor must be activated on the Harvest Performance Tracker (HPT) the first time it is attached to a windrower.

NOTE:

If necessary, refer to the windrower operator's manual to navigate the HPT display.

DANGER

To prevent bodily injury or death from the unexpected startup of the machine, always stop the engine and remove the key from the ignition before leaving the operator's seat for any reason.

1. Turn the ignition key to ON to activate the HPT.
2. Press soft key 5 (A) to open the main menu or press SHIFT and SELECT on the ground speed lever (GSL).
3. Use the HPT scroll knob (B) or the GSL scroll wheel (not shown) to move red cursor (C).

   NOTE:

   Using the scroll knob will activate titles that explain each selection.
4. Press HPT scroll knob (B) or the GSL SELECT button (not shown) to select the highlighted icon.

   NOTE:

   Pressing the corresponding soft key will also work.

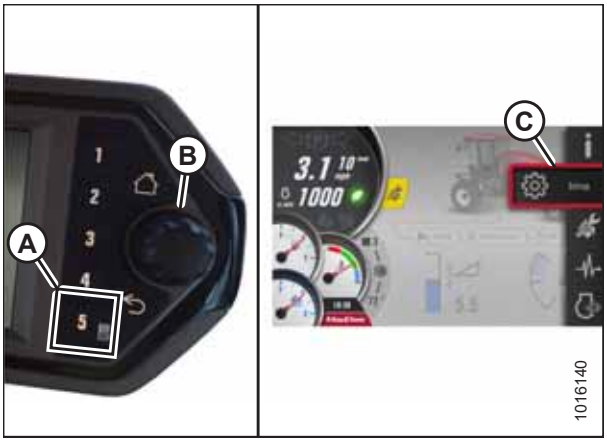


Figure 3.1: Opening Main Menu

5. Scroll down and select HEADER SETUP menu (A).

Figure 3.2: Header Setup Menu

6. Select the correct header from the menu.

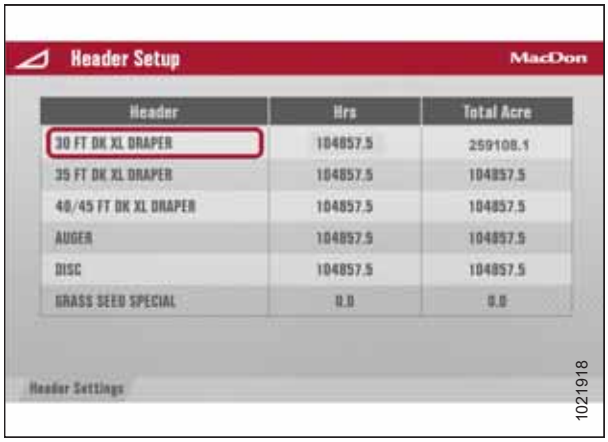


Figure 3.3: Header Setup Menu

7. Select ATTACHMENTS (A).

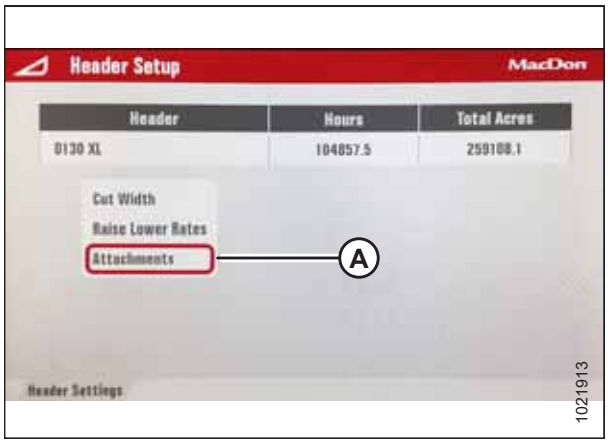


Figure 3.4: Header Setup Menu

8. Select SWATH COMPRESSOR (A). The sensor is now active and the HPT will control the swath compressor.

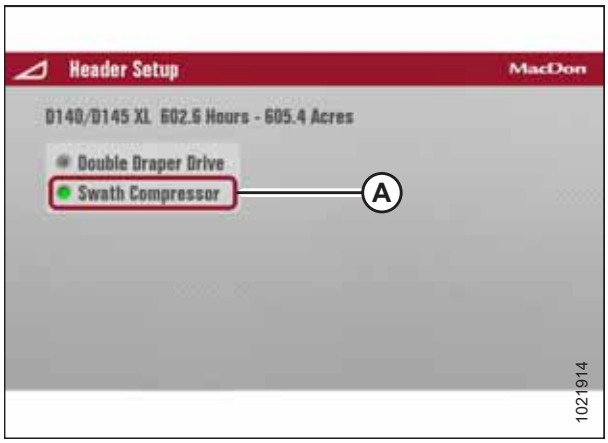


Figure 3.5: Attachments Menu

9. From the SETUP menu, select WINDROWER SETTINGS (A).

Figure 3.6: Setup Menu

10. Select SENSORS menu (A).

Figure 3.7: Windrower Settings

11. Scroll to SWATH COMPRESSOR (A) and confirm that the swath compressor sensor is enabled.

12. Proceed to *3.1.1 Calibrating Position Sensor – M1 Series Windrowers, page 36*.

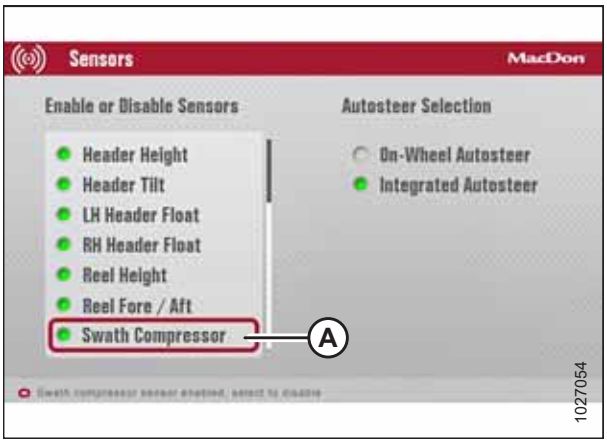


Figure 3.8: Sensors Menu

3.1.1 Calibrating Position Sensor – M1 Series Windrowers

The position sensor must be calibrated when the swath compressor is first installed.

NOTE:

To calibrate the position sensor, the swath compressor must be attached to the windrower, but it can be calibrated with or without a header attached. This procedure shows the calibration process with both the swath compressor and header attached to the windrower.

The Harvest Performance Tracker (HPT) recognizes the attachment(s) and determines the systems that require calibration.

The following sensors will be calibrated depending on the attachment(s):

- Header height
- Header angle
- Header float left
- Header float right
- Reel height
- Reel fore-aft
- Swath compressor height

To calibrate the sensors, follow these steps:

DANGER

Ensure that all bystanders have cleared the area.

1. Start the windrower, and engage the header.
2. Press soft key 5 (A) to open the main menu.

   NOTE:

   Calibrations **MUST** be performed with the engine running. Some calibrations will not be available with the engine off.
3. Use HPT scroll knob (B) or the ground speed lever (GSL) scroll wheel (not shown) to highlight SETTINGS icon (C).
4. Press HPT scroll knob (B) or the GSL SELECT button (not shown) to activate the settings menu options.

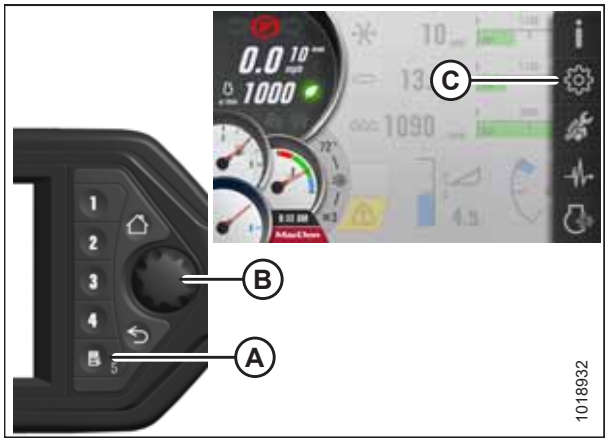


Figure 3.9: Opening Main Menu

5. Scroll to WINDROWER SETTINGS icon (A) and press SELECT.

6. Scroll to CALIBRATION icon (B), and press SELECT to open the Calibration Selection menu.

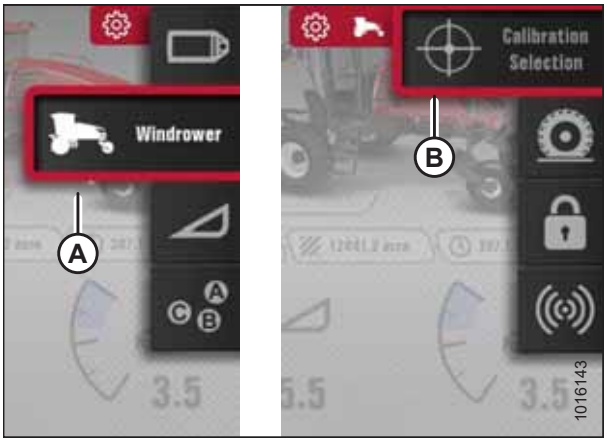


Figure 3.10: Windrower Settings Icon and Calibration Submenu Icon

7. In the Calibration Selection menu, select POSITION SENSORS (A).

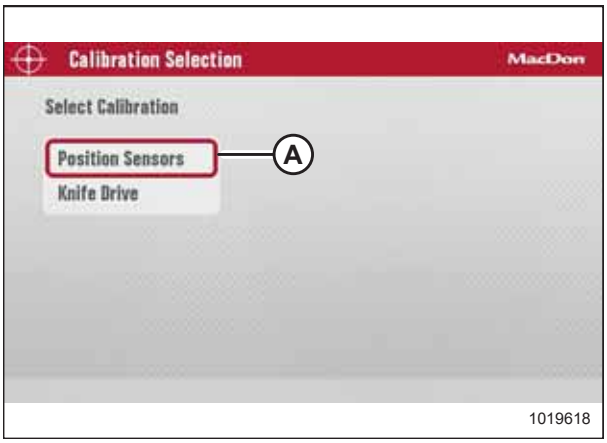


Figure 3.11: Calibration Selection Menu

NOTE:

If calibration is selected with the header disengaged, “ENGAGE HEADER” will display, followed by the WARNING message on the right.

8. Press PLAY icon (A) to begin the calibration process. The display will change to show that calibration has started.

NOTE:

If the engine speed is less than 1500 rpm prior to starting the calibration, the system will accelerate the engine speed to 1500 rpm.

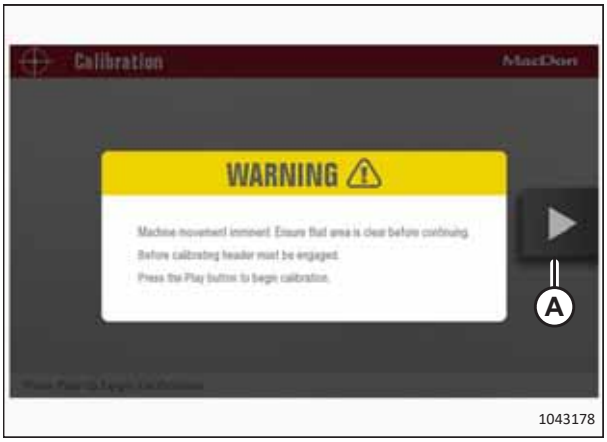


Figure 3.12: Calibration Screen

NOTE:

Pressing X icon (A), HOME, BACK, or any of the ground speed lever (GSL) buttons at any time during calibration will stop the calibration process without saving your progress. The engine speed will return to the original rpm before starting the calibration process.

NOTE:

If a sensor goes out of its normal operating range during the calibration process, calibration will stop and a message will appear indicating that the sensor is out of range.

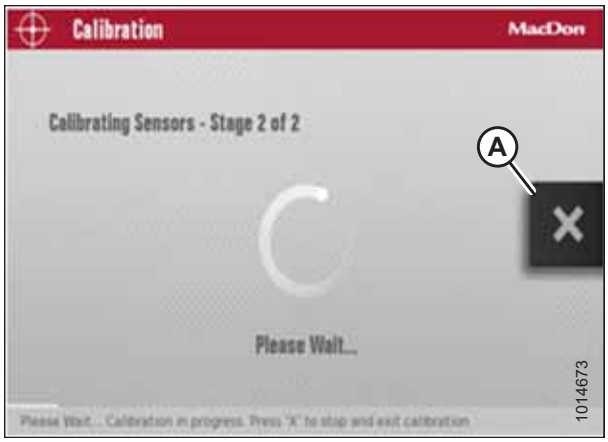


Figure 3.13: Calibration Screen

9. When stage one of the calibration is complete, press PLAY icon (A) to continue with stage two of calibration.

Figure 3.14: Calibration Screen

10. When stage two of calibration is complete, press RESUME icon (A) to set the header float, or press HOME or BACK button (not shown) to exit without setting the float.

    NOTE:

    The engine speed returns to the original rpm when stage two of calibration is complete.

Figure 3.15: Calibration Screen

NOTE:

If the voltage of any sensor sweeps below what is acceptable during calibration, a list of sensors will display afterward. Adjust the sensor(s) and repeat the calibration process from the beginning.

Figure 3.16: Sample of Failed Calibration Display Message

3.2 Activating Swath Compressor – M2 Series Windrowers

The swath compressor must be activated on the HarvestTouch™ Display the first time it is attached to a windrower.

1. Select MENU (A).

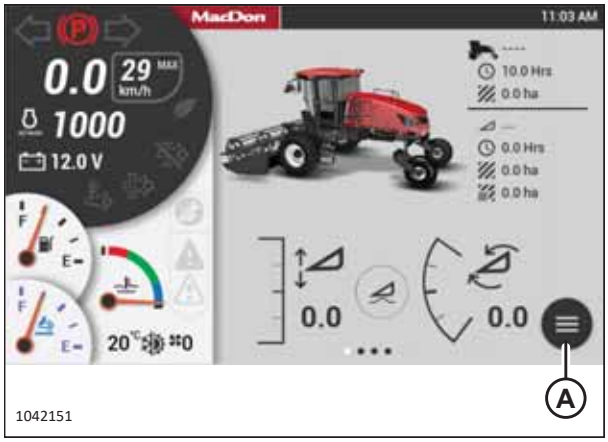


Figure 3.17: HarvestTouch™ Display – Header Disengaged

2. Select SETUP (A).

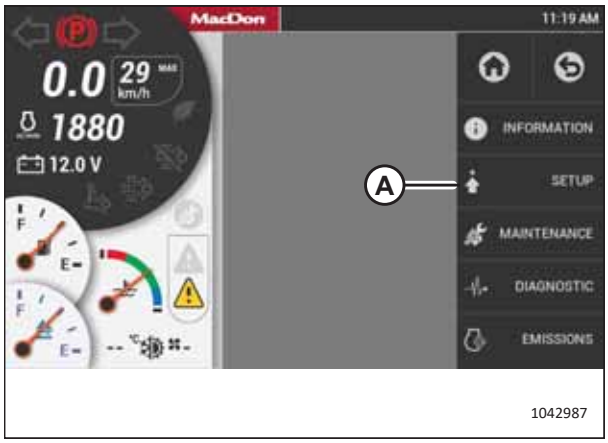


Figure 3.18: HarvestTouch™ Display

3. Select HEADER (A).

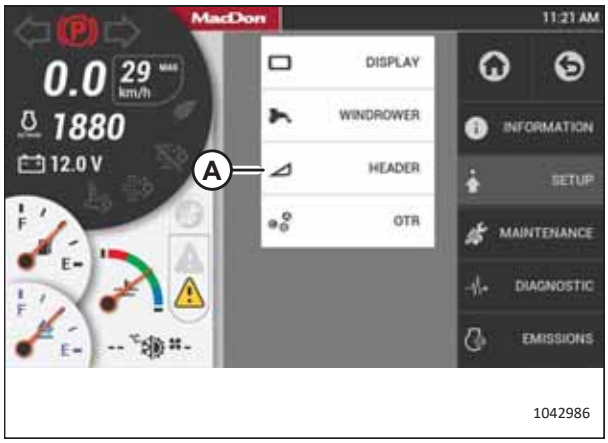


Figure 3.19: HarvestTouch™ Display

4. Select the model and configuration of header (A) attached to the windrower.

   NOTE:

   For example, “D230DK” means “D230 Double-knife header”.

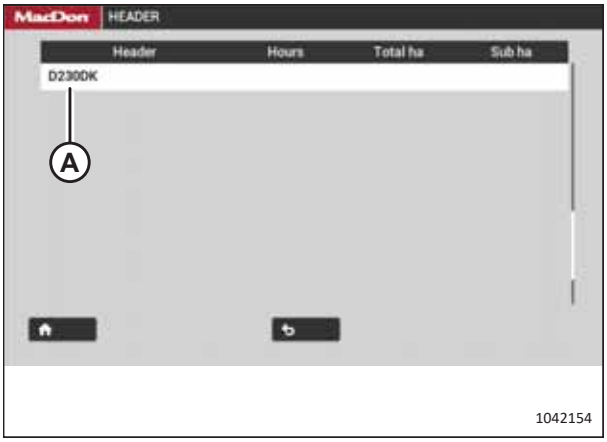


Figure 3.20: Header Settings

5. Select ATTACHMENTS (A).

Figure 3.21: Header Menu

6. Select SWATH COMPRESSOR (A).

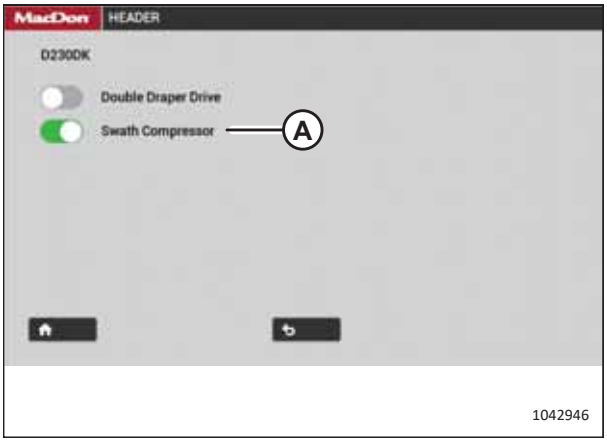


Figure 3.22: Attachments Menu

7. From the SETUP menu, select WINDROWER (A).

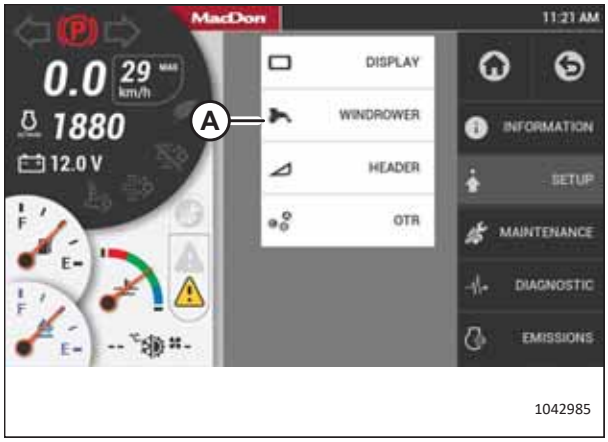


Figure 3.23: Setup Menu

8. Select SENSORS (A).

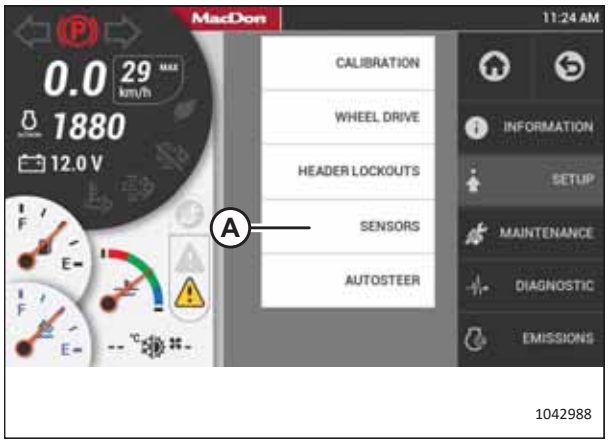


Figure 3.24: Windrower Menu

9. Confirm that SWATH COMPRESSOR sensor (A) is enabled.

10. Proceed to *3.2.1 Calibrating Position Sensor – M2 Series Windrowers, page 43*.

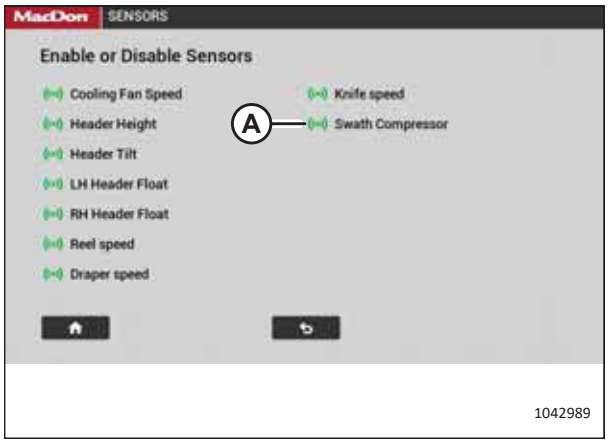


Figure 3.25: Sensors Menu

3.2.1 Calibrating Position Sensor – M2 Series Windrowers

The position sensor must be calibrated when the swath compressor is first installed.

NOTE:

This calibration **MUST** be performed with the engine running and the header engaged.

DANGER

Ensure that all bystanders have cleared the area.

1. Start the engine.
2. Engage the header.

   NOTE:

   Once the header is engaged, header gauges (A) will appear on the HarvestTouch™ Display home page.

3. Select MENU icon (B).

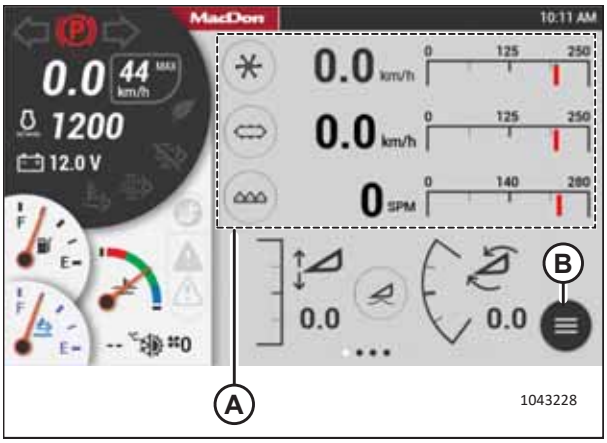


Figure 3.26: HarvestTouch™ Display

4. Select SETUP (A).

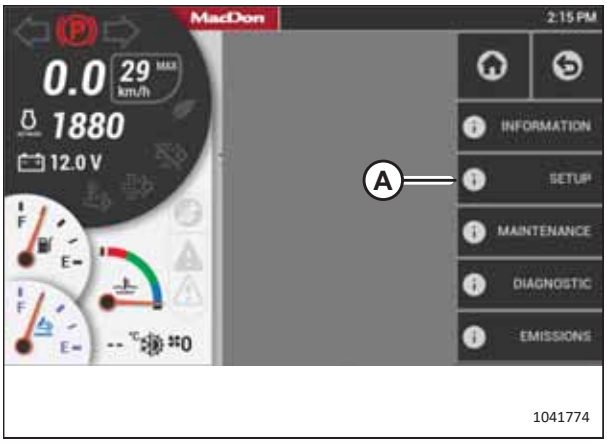


Figure 3.27: Main Menu

5. Select CALIBRATION (A).

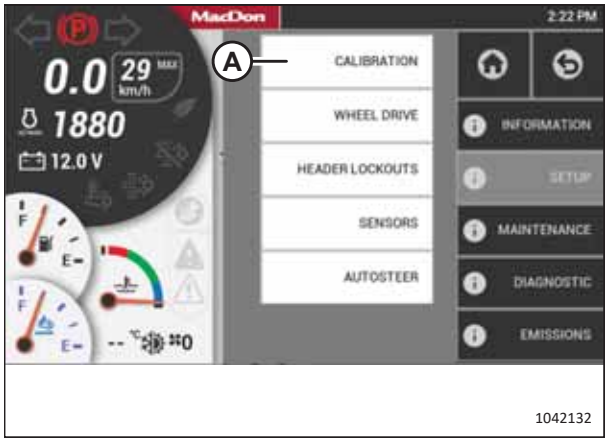


Figure 3.28: Setup Menu

6. Select POSITION (A).

Figure 3.29: Calibration Selection Page

7. Select PLAY icon (A).

   NOTE:

   The PLAY icon will only appear if the header is engaged.

Figure 3.30: Engage Header Warning

8. The calibration will attempt the first stage of calibration.

   NOTE:

   Pressing X icon (A), HOME, BACK, or any of the ground speed lever (GSL) buttons at any time during calibration will stop the calibration process without saving your progress. The engine speed will return to the original rpm before starting the calibration process.

   NOTE:

   If a sensor goes out of its normal operating range during the calibration process, calibration will stop and a message will appear on the screen indicating that a sensor is out of range.

Figure 3.31: Calibration Page

9. When the first stage of calibration is complete, select PLAY icon (A) on the screen to continue with the second stage of the calibration process.

Figure 3.32: Calibration Page

   NOTE:

   If the voltage of any sensor falls below its acceptable range during calibration, a list of sensors reporting out-of-range voltages will appear afterward. Adjust the sensors as needed and repeat the calibration process from the beginning.

Figure 3.33: Sample of Failed Calibration Display Message

10. When the second stage of calibration is complete, calibration is complete. Select RESUME icon (A) on the screen to configure header float, or select the HOME or BACK icons to exit the screen.

    NOTE:

    The engine speed returns to the speed prior to calibration when the second stage of the calibration is complete.

Figure 3.34: Calibration Page

3.3 Using Swath Compressor

The height of the swath compressor can be adjusted and monitored from the cab display. Adjust the height of the swath compressor for crop ripeness, yield, and the amount of compression required.

NOTE:

The swath compressor will automatically lift if the Operator stops or reverses the windrower.

3.3.1 Swath Compressor Controls

This topic explains how the windrower controls the swath compressor and describes the automated raise/lower functions.

DANGER

To prevent bodily injury or death from the unexpected startup of the machine, stop the engine and remove the key from the ignition before leaving the operator's seat.

Swath compressor height (A) is illustrated with a scale from 0–10 on the cab display.

Swath compressor icon (B) displays when the swath compressor is activated.

If the swath compressor sensor is disabled, height number (A) is replaced with a "sensor disabled" icon.

NOTE:

To enable the sensor, refer to *3.1 Activating Swath Compressor – M1 Series Windrowers, page 33* or *3.2 Activating Swath Compressor – M2 Series Windrowers, page 40*.

Figure 3.35: Harvest Performance Tracker Display

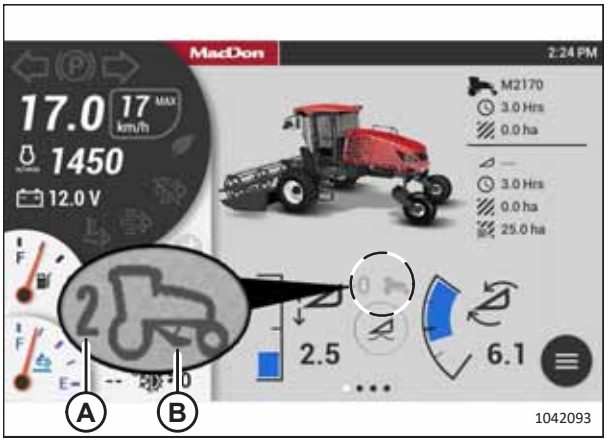


Figure 3.36: HarvestTouch™ Display

Switches (A) and (B) on the operator's console adjust the height of the swath compressor. Releasing the switch stops adjustment.

Each press of the switch changes the value by one. Pressing and holding the switch changes the value by one increment per second.

The last position set with the console becomes the target height. When an adjustment is made, the display shows the target value. The system immediately adjusts to attain the target position.

After the last adjustment, the display shows the target value for 5 seconds, then reverts to the actual position.

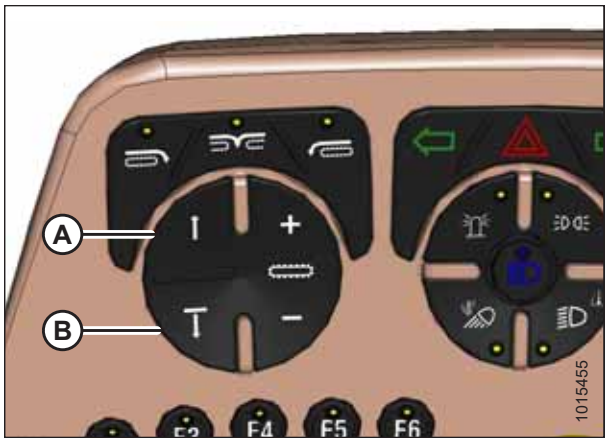


Figure 3.37: Operator's Console

Display functions

- As the swath compressor moves up or down, value (A) changes, windrower icon (B) appears as an outline, and swath compressor (C) flashes.
- Windrower icon (B) becomes solid when the target height is achieved.
- When the swath compressor is fully raised, value (A) becomes 0 and windrower icon (B) appears as an outline.
- If a header is not attached, icon (B) becomes invisible and automation is disabled. The height of the swath compressor can still be adjusted.

Figure 3.38: HPT Display

Swath compressor automated functions: header engaged

- The swath compressor lowers to target height at a ground speed higher than 2.5 km/h (1.6 mph).
- The swath compressor fully rises as the ground speed transitions through 1.6 km/h (1 mph) during deceleration.
- The swath compressor fully rises when the header is disengaged at a ground speed higher than 1.6 km/h (1 mph).
- If the swath compressor is not fully raised and the GSL moves out of PARK to engine-forward mode, a message to raise the swath compressor appears on the display accompanied by a tone.

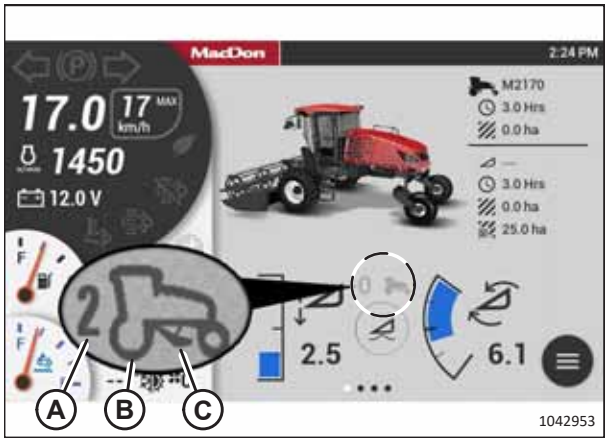


Figure 3.39: HarvestTouch™ Display

NOTE:

When the swath compressor is not in use or when the windrower is in engine-forward mode, engage the swath compressor lock. For instructions, refer to *3.3.6 Locking and Unlocking Swath Compressor, page 52*.

3.3.2 Setting Up Swath Compressor

Operate the windrower in crop and use the following procedure to determine the required settings for the crop and crop conditions.

CAUTION

Park on a level surface with the ground speed lever (GSL) in the PARK position and the steering wheel in the locked (centered) position. Wait for the HarvestTouch™ Display or the Harvest Performance Tracker (HPT) to beep and display a red P symbol to confirm that the parking brake is engaged.

DANGER

To prevent bodily injury or death from the unexpected startup of the machine, stop the engine and remove the key from the ignition before leaving the operator's seat.

DANGER

Ensure that all bystanders have cleared the area.

1. Rotate handle (A) counterclockwise to disengage the lock on the left rear support.
2. Start the engine, set the ground speed lever (GSL) in PARK, and ensure that the header is disengaged.

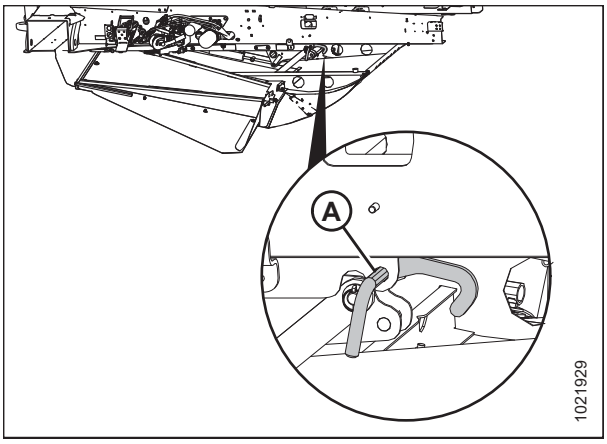


Figure 3.40: Swath Compressor Lock

3. Set the height of the swath compressor using switches (A) and (B).

   NOTE:

   Set the height to 6 if there is no preferred height.

4. Engage and disengage the header. The swath compressor will raise fully.

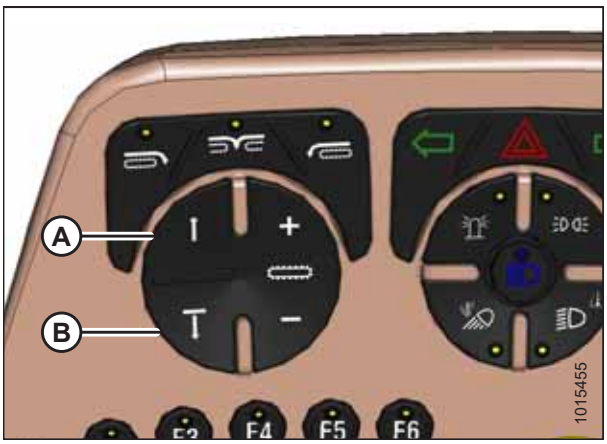


Figure 3.41: Operator's Console

5. Engage the header and begin cutting crop. When the ground speed exceeds 2.5 km/h (1.6 mph), the swath compressor will lower to target height (A).

6. Shut down the engine, and remove the key from the ignition.

7. Check the formation of the windrow.

   - If necessary, adjust target height (A).
   - If the edges of the windrow do not sufficiently press into the stubble, adjust the side deflectors. For instructions, refer to *3.3.5 Adjusting Side Deflectors, page 52*.
   - If the swath compressor shield raises too easily in dense windrows, adjust the compression. For instructions, refer to *3.3.4 Adjusting Compression, page 51*.

Figure 3.42: HPT Display

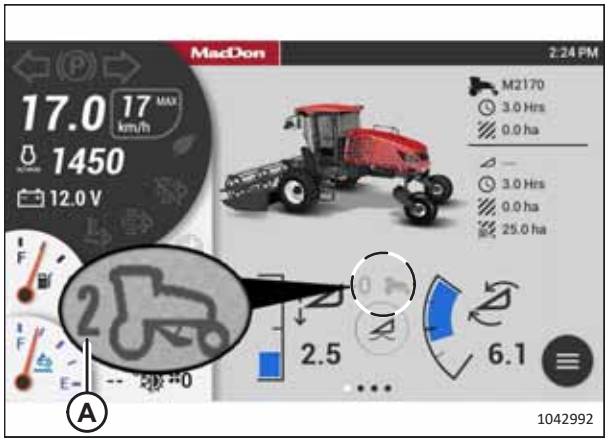


Figure 3.43: HarvestTouch™ Display

3.3.3 Programming One-Touch-Return Buttons

The One-Touch-Return buttons A, B, and C on the ground speed lever (GSL) save the header height settings, but the swath compressor settings can also be saved depending on the type of header.

To program the One-Touch-Return buttons, follow the steps below:

1. Adjust the swath compressor to the desired position.
2. Press and hold the One-Touch-Return button on the GSL handle for 3 seconds until a tone is heard. The current settings will be saved to the button. To return the header to a preset configuration, quickly press the button.

   NOTE:

   A new setting will only be saved if the position of the compressor was set with the switches on the console. If the swath compressor height sensor is disabled, automation is disabled. Raising/lowering the compressor will only be possible by pressing the switches on the console.

Figure 3.44: Ground Speed Lever (GSL)

3.3.4 Adjusting Compression

The swath compressor automatically raises when the load on the shield exceeds the compression setting. When the load decreases, the compressor deck returns to the target height.

The compression setting is set at the factory to suit most crop conditions and can be adjusted as follows:

1. Loosen jam nut (A) to allow adjustment knob (B) to turn. Do **NOT** remove the nut.
   - For a more compact windrow with higher wind resistance, turn adjuster knob (B) clockwise to increase compression.
   - To minimize crop shelling and decrease cut crop compression, turn adjuster knob (B) counterclockwise.

   NOTE:

   Start with the lowest compression (with the adjuster knob fully turned counterclockwise) and increase the compression setting in half-turn increments as required.
2. Tighten jam nut (A) to maintain the setting.

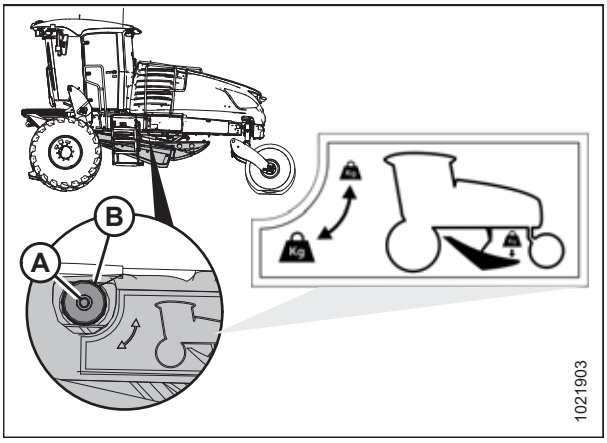


Figure 3.45: Compression Adjustment

3.3.5 Adjusting Side Deflectors

To reduce wind damage to the windrow, adjust the side deflectors to ensure that the edges of the windrows are tucked in and anchored to the stubble.

1. To adjust side deflectors (A), loosen handles (B) and move the deflectors to the desired position.

   To ensure that the windrow placement is centered, set both of the side deflectors to the same position.

   IMPORTANT:

   When an M1170*NT*, M1170*NT5*, or M2170*NT* is in narrow transport mode, the side deflectors may contact the stairs if the deflectors are positioned fully outboard.

2. Tighten handles (B) after adjusting the deflectors.

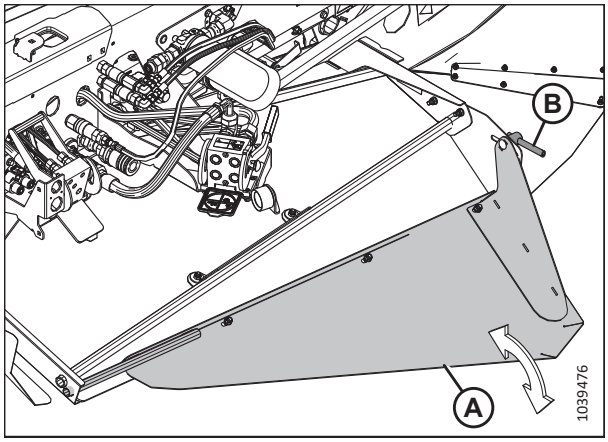


Figure 3.46: Swath Compressor Side Deflectors

3.3.6 Locking and Unlocking Swath Compressor

The swath compressor lock is located on the left cab-forward side of the swath compressor frame. When the lock is engaged, the lock prevents the compressor shield from lowering.

1. Turn lock handle (A) clockwise to engage the swath compressor lock under the following conditions:
   - Swath compressor is not in use
   - Windrower is being serviced
   - Windrower is in engine-forward mode
2. Turn handle (A) counterclockwise to disengage the lock before operating the swath compressor.

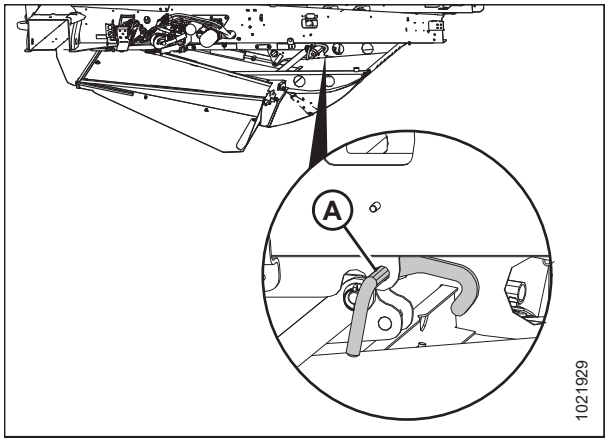


Figure 3.47: Swath Compressor Lock

Chapter 4: Maintenance

The swath compressor does not require any scheduled maintenance or servicing.

If it is necessary to replace any components, refer to Chapter *5 Illustrated Parts Lists, page 63* in this manual.

4.1 Removing Shield Assembly

Windrower service or maintenance procedures may require you to remove the swath compressor shield assembly.

DANGER

To prevent bodily injury or death from the unexpected startup of the machine, stop the engine and remove the key from the ignition before leaving the operator's seat.

DANGER

Ensure that all bystanders have cleared the area.

Remove the shield as follows:

1. Disengage swath compressor lock (A) by turning it counterclockwise.
2. Fully lower the swath compressor.
3. Shut down the engine, and remove the key from the ignition.

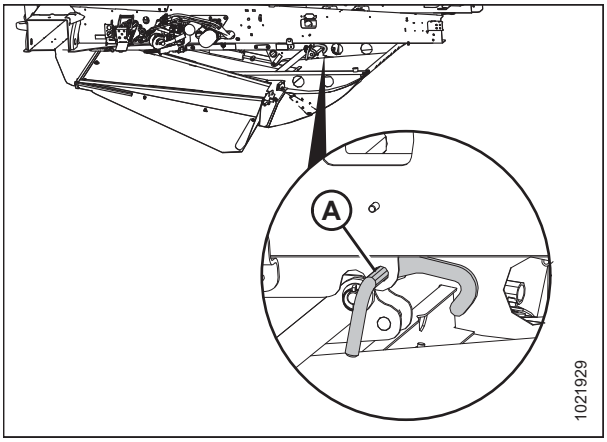


Figure 4.1: Swath Compressor Lock

4. At the front of the swath compressor, remove hairpin (A) from pivot pin (B) on both sides of the frame.

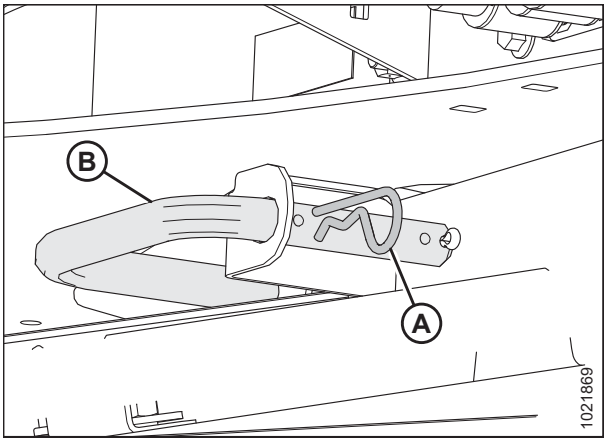


Figure 4.2: Forward Pivot Pin

5. Push down on rear of shield (A) while another person lifts front of shield (D).
6. Pull pivot pins (B) from ball joints (C) on both sides of the frame.

   NOTE:

   To avoid misplacing the parts, reinstall the hairpins into the pivot pins.
7. Lower front of shield (D) to the ground.

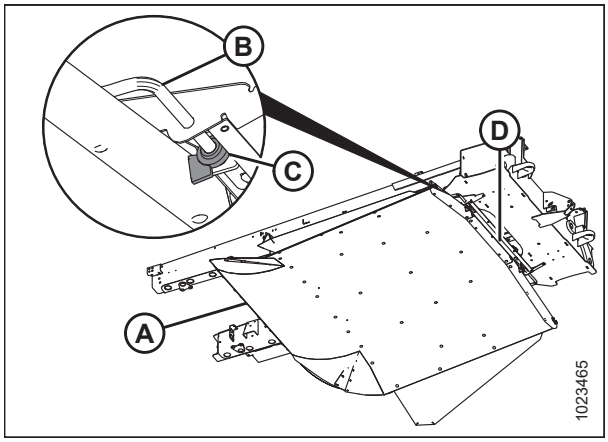


Figure 4.3: Front Pivot Pins

8. At the rear end of the shield, support the shield under support (C) with a floor jack or an equivalent device.
9. Remove lynch pins (F) and washers (E) from pins (B) on both ends of rock shaft (G).
10. Remove lowering arms (D) from rock shaft (G).
11. Reinstall bushings (A), washers (E) and lynch pins (F) on pins (B).
12. Lower the rear end of the shield to the ground and move the lifting device away from the work area.
13. Fully raise the swath compressor.
14. Slowly drive the windrower away from the shield.

    IMPORTANT:

    Do **NOT** sit on the swath compressor shield while servicing the windrower.

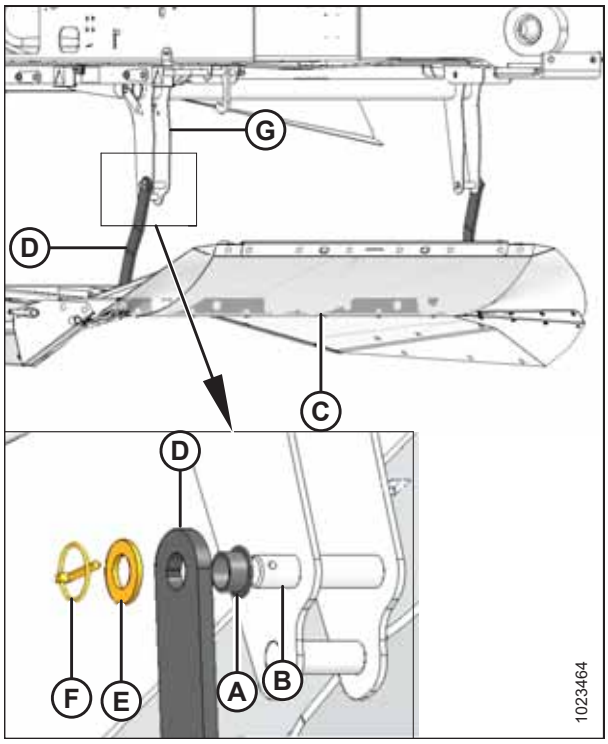


Figure 4.4: Disconnecting Lowering Arms

4.2 Electrical System

The electrical system for the swath compressor is powered by the windrower.

4.2.1 Rotary Sensor (MD #128994)

The rotary position sensor is located on the inboard side of the swath compressor's left support assembly.

Range: 0.5–4.5 volts (-45° to +45°)

Table 4.1 Rotary Sensor Pinout (MD #128994)

Position	Function
1	Power
2	Ground
3	Signal

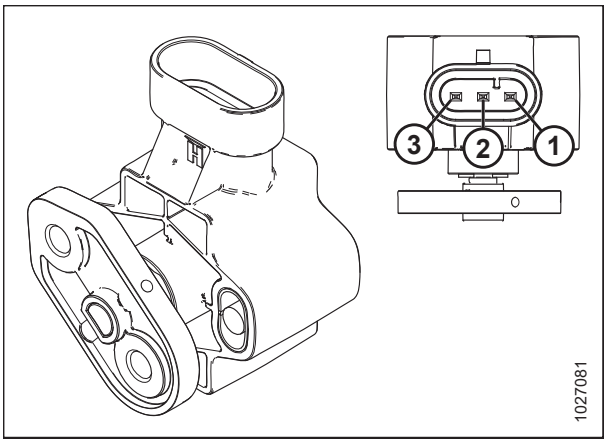


Figure 4.5: MD #128994

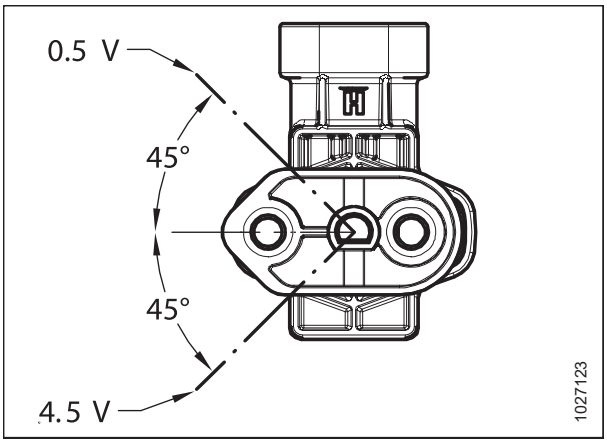


Figure 4.6: Sensor Voltage Range

4.2.2 Swath Compressor Harness (MD #209256)

The swath compressor harness connects to the position sensor and P729 on the windrower's chassis harness.

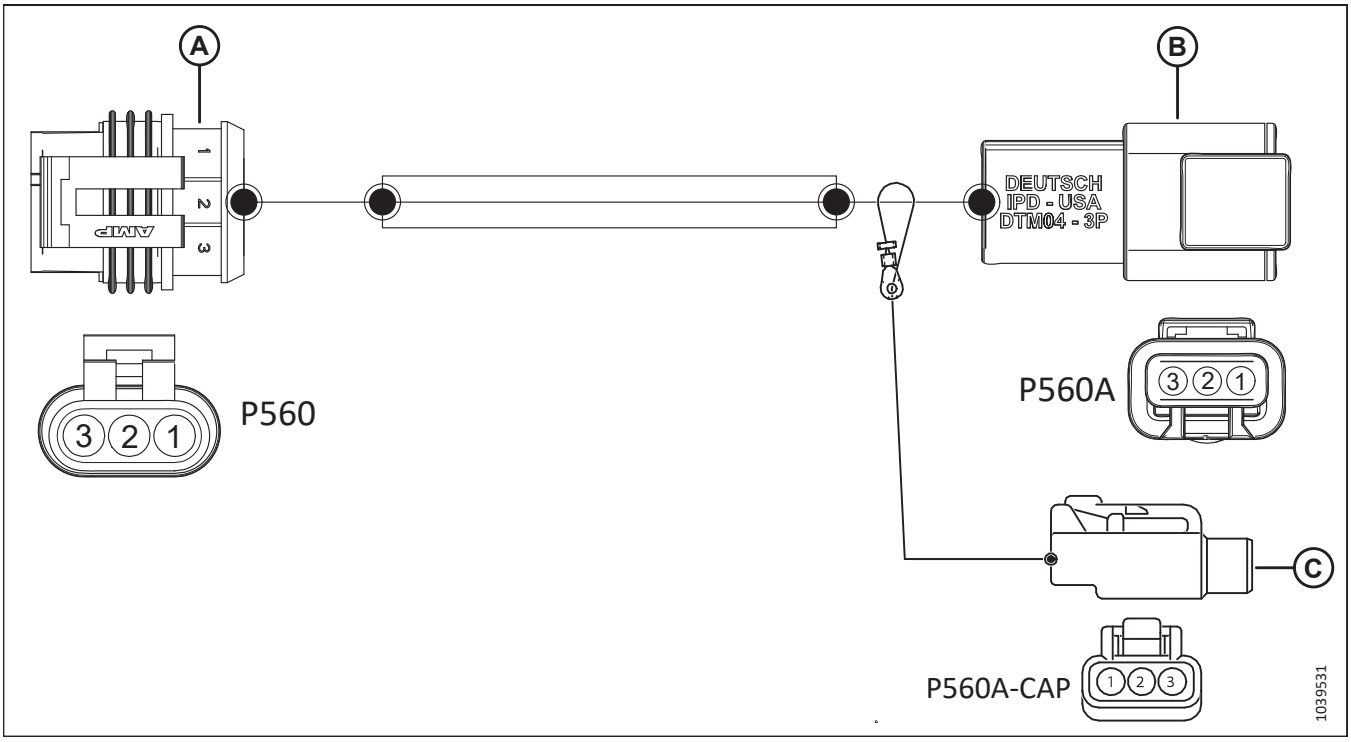


Figure 4.7: Harness (MD #209256)

A - MD #134091 (Tyco, AMP SS 1.5 3P) – to Rotary Sensor

B - MD #134018 (Deutsch, DTM04-3P) – to Chassis Harness P729

C - MD #134019 (Deutsch, DTM06-3S) – P560A Cap

Table 4.2 MD #134091 – Tyco, AMP SS 1.5 3P

Pin	Circuit	Color	Awg	From	To
1	SF2201	Yellow	18	Rotary sensor, pin 1 (power)	P560A, pin 1
2	SF2301	Brown	18	Rotary sensor, pin 2 (ground)	P560A, pin 3
3	SF2501	White	18	Rotary sensor, pin 3 (signal)	P560A, pin 2

Table 4.3 MD #134018 – Deutsch, DTM04-3P

Pin	Circuit	Color	Awg	From	To
1	SF2201	Yellow	18	P560, pin 1 (power)	P729, pin 1 – CH2201G
2	SF2501	White	18	P560, pin 3 (signal)	P729, pin 2 – CH2325
3	SF2301	Brown	18	P560, pin 2 (ground)	P729, pin 3 – CH0552P

Harness Connections

The swath compressor harness connects to the position sensor and P729 on the windrower's chassis harness.

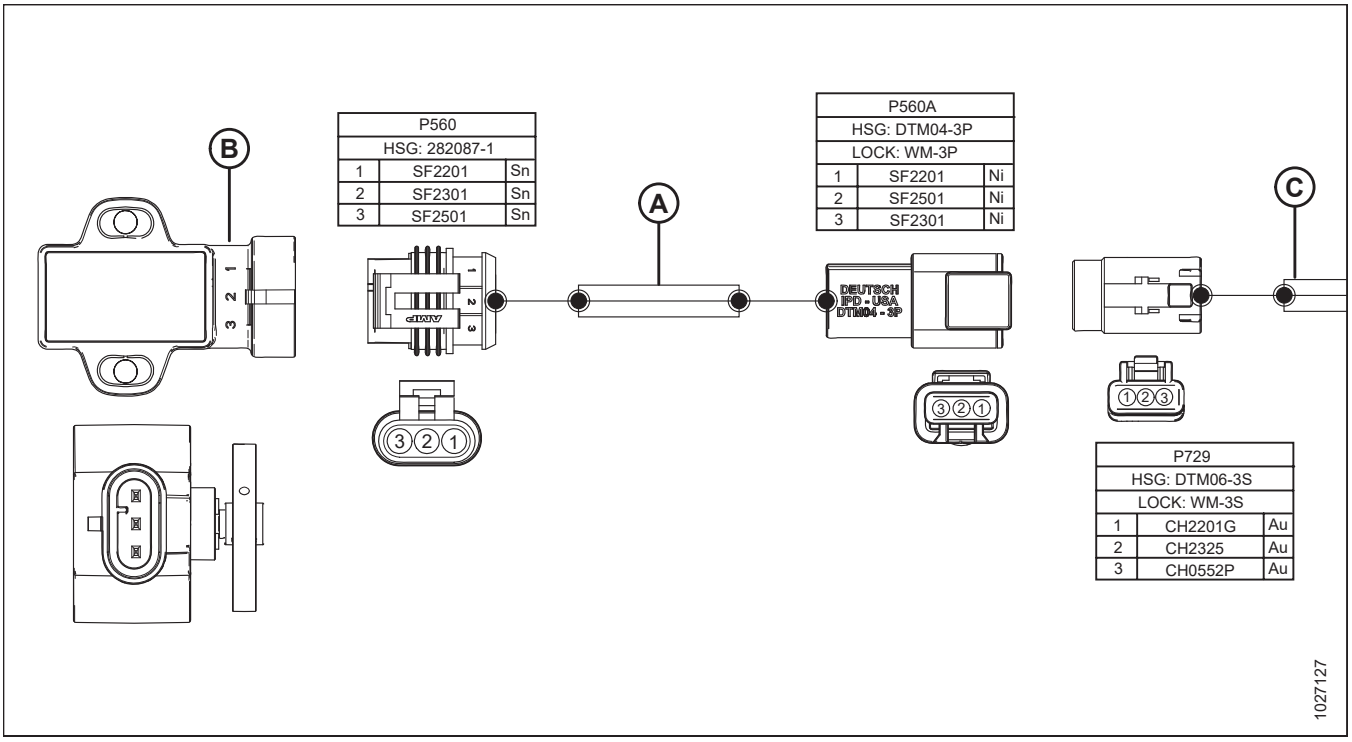


Figure 4.8: Swath Compressor Harness Connections

A - Swath Compressor Harness (MD #209256) **B - Rotary Sensor (MD #128994)** **C - Chassis Harness**

4.2.3 Electrical Schematic

This electrical schematic shows the electrical circuit on the chassis harness that provides power to the swath compressor.

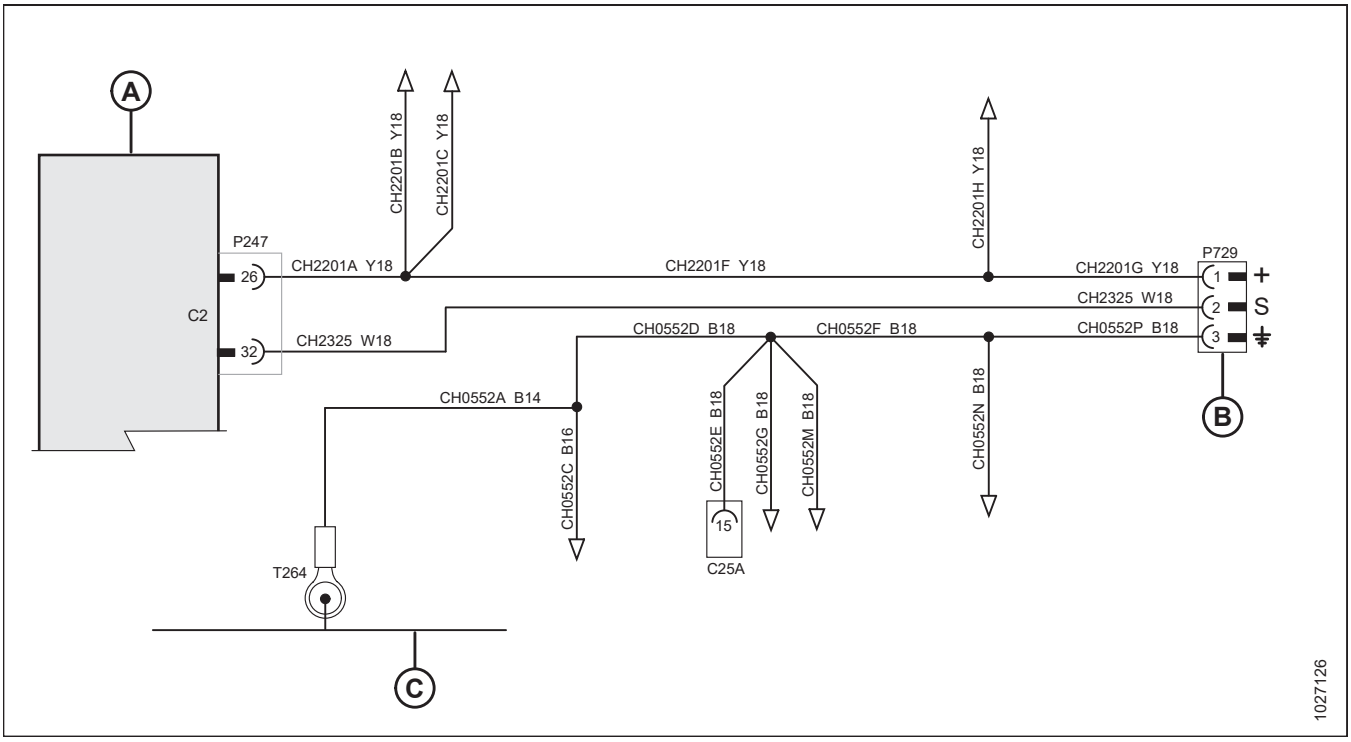


Figure 4.9: Electrical Schematic – M1 Series with Swath Compressor

A - Chassis Extension Module **B - Connector P729 (to Swath Compressor Harness P560A)** **C - Ground Rail**

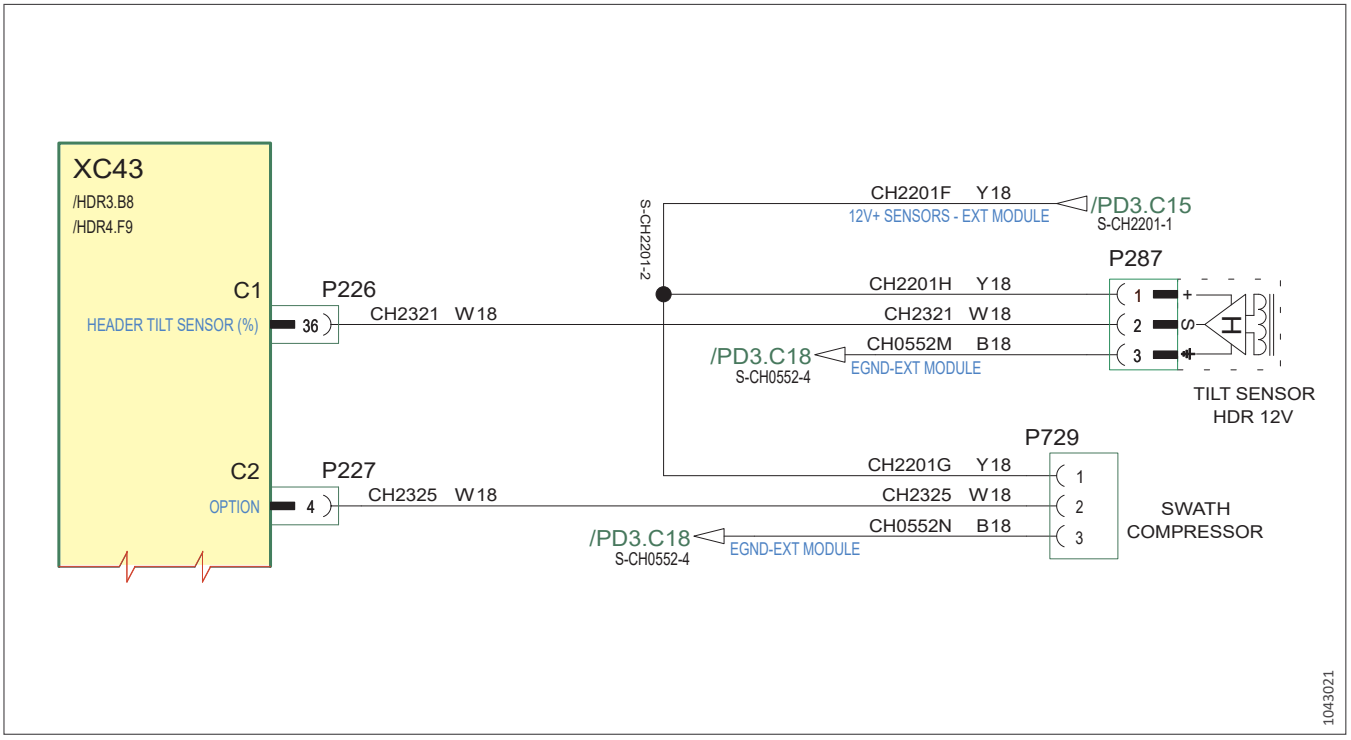
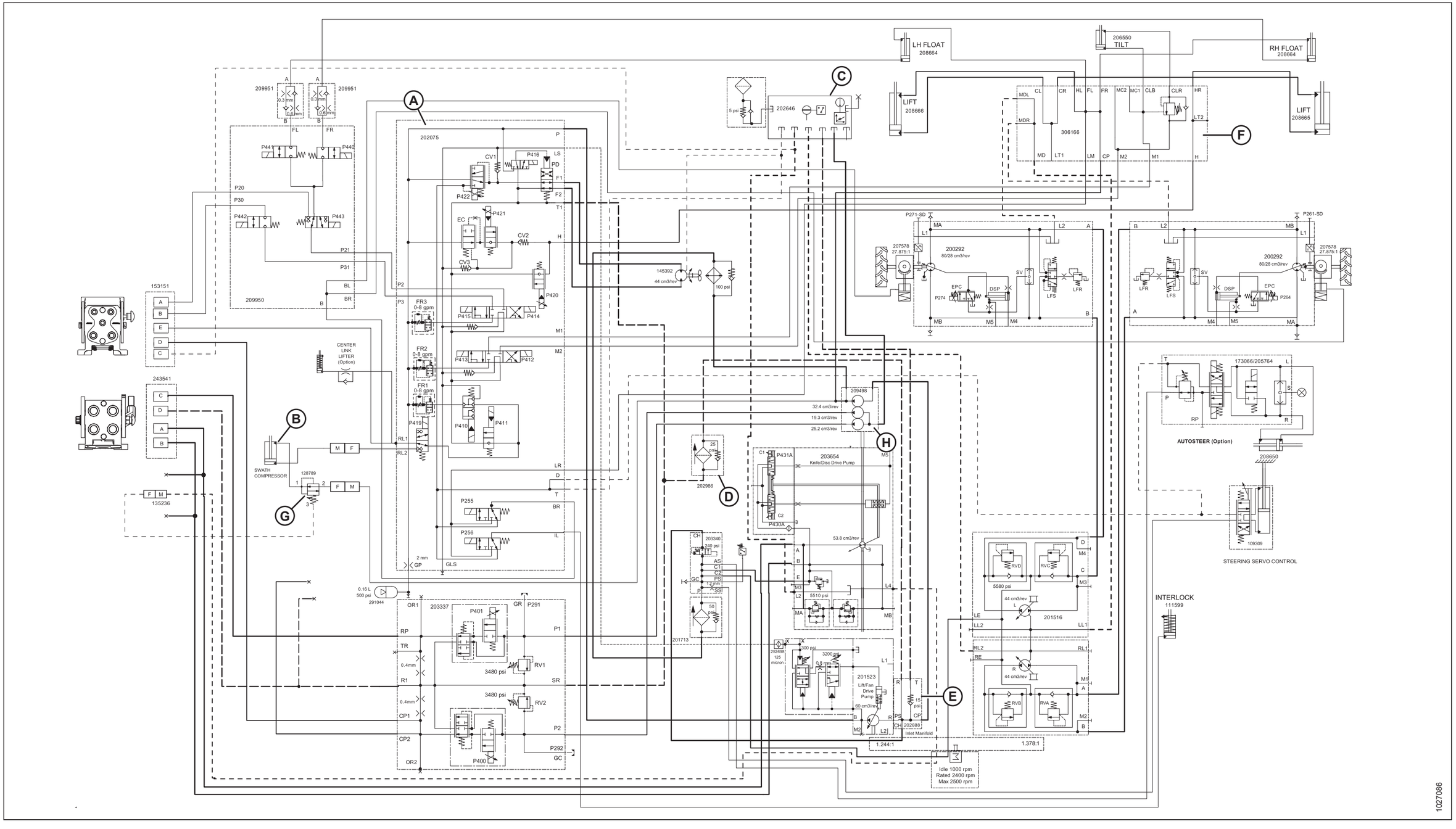


Figure 4.10: Electrical Schematic – M2 Series with Swath Compressor

4.3 Hydraulic Schematic

The hydraulic schematic below shows the Swath Compressor attached to an M1 or an M2 Series Windrower.

Hydraulic Schematic – M1 and M2 Series with Swath Compressor



A - Lift Manifold
B - Swath Compressor Lift Cylinder
C - Hydraulic Tank
D - Hydraulic Filter Element
E - Inlet Manifold
F - Junction Manifold
G - Reducing Valve
H - Gear Pump

Chapter 5: Illustrated Parts Lists

This section lists the replacement parts for the M1 and M2 Series Windrowers and Swath Compressor.

Bold text is used to indicate updates made at the current revision level. With each new revision of the manual, previous revisions are returned to regular text.

5.1 Abbreviations

A/R – as required (quantity varies)	ASSY – assembly	BHRN – button head rib neck
BV – ball valve	CCW – counterclockwise	CON – conical (spring washer)
CSK – countersink	C/W – complete with	CW – clockwise
DBLE – double	DK – double knife	DR – double reel
DT – distorted thread	FLG – flange	GA – gauge
GR – grade	GS – grass seed	HD – head
HDR – header	HFA – hydraulic fore-aft	HH – hex head
HNBR – hydrogenated nitrile butadiene rubber	HYD – hydraulic	I.D. – inside diameter
IP – internal plus (torx plus)	KP – knife pressure	KR – knife return
LG – long	LH – left hand (determined from Operator's position, facing forward)	LK – lock
MACH – machine	MD – MacDon	MFA – manual fore-aft
MY – model year	NC – national coarse thread	NF – national fine thread
NSS – not sold separately	NT – narrow transport	O.D. – outside diameter
OPT – optional	PO – pilot operated	PT – pull-type (mower conditioner)
RC – roller chain	REF – reference, part number called up elsewhere in catalog	REG – regular
RH – right hand (determined from Operator's position, facing forward)	RHSN – round head, square neck or square neck carriage bolt	RHSSN – round head, short, square neck
RTD – rotating tine drum	SAE – Society of Automotive Engineers (part produced to comply with)	SD – side draper
SER – serrated	SK – single knife	SKT HD – socket head
SMTH – smooth	SMV – slow moving vehicle	SOCK – socket
SP – self-propelled (windrower) header	SPCL – special	SPH – spherical
SPI – serrations per inch (knife Sections)	SR – single reel	STL – steel (stainless)
STR – standard	STVR – Stover	TFL – thread full length
THD – thread	TR – triple reel	UCA – upper cross auger
UDK – untimed double knife	UNC – unified coarse thread	UNEF – unified extra fine thread
UNF – unified fine thread	UNS – unified special thread series	VK – veritcal knife
WF – wide frame	ZP – zinc plated	

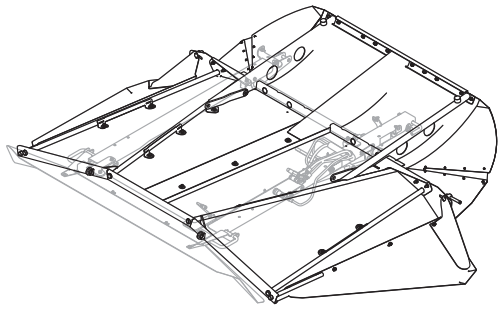
5.2 Serial Number Breaks

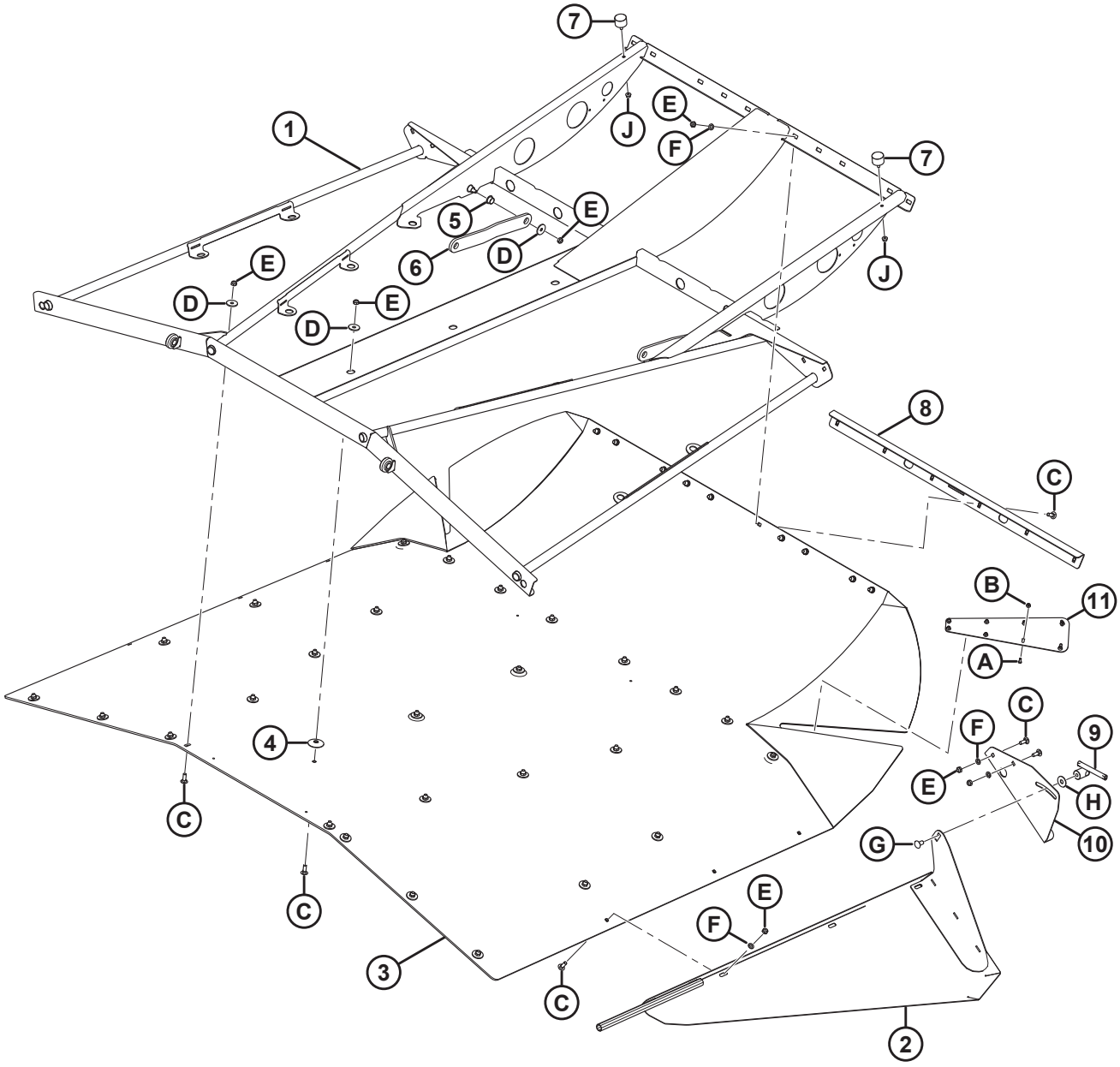
The side of the serial number on which the dash (–) appears determines whether the part is used up to or after the serial number given.

Example:

- –451189: Used on machines up to and including serial number 451189
- 451190– : Used on machines including and after serial number 451190

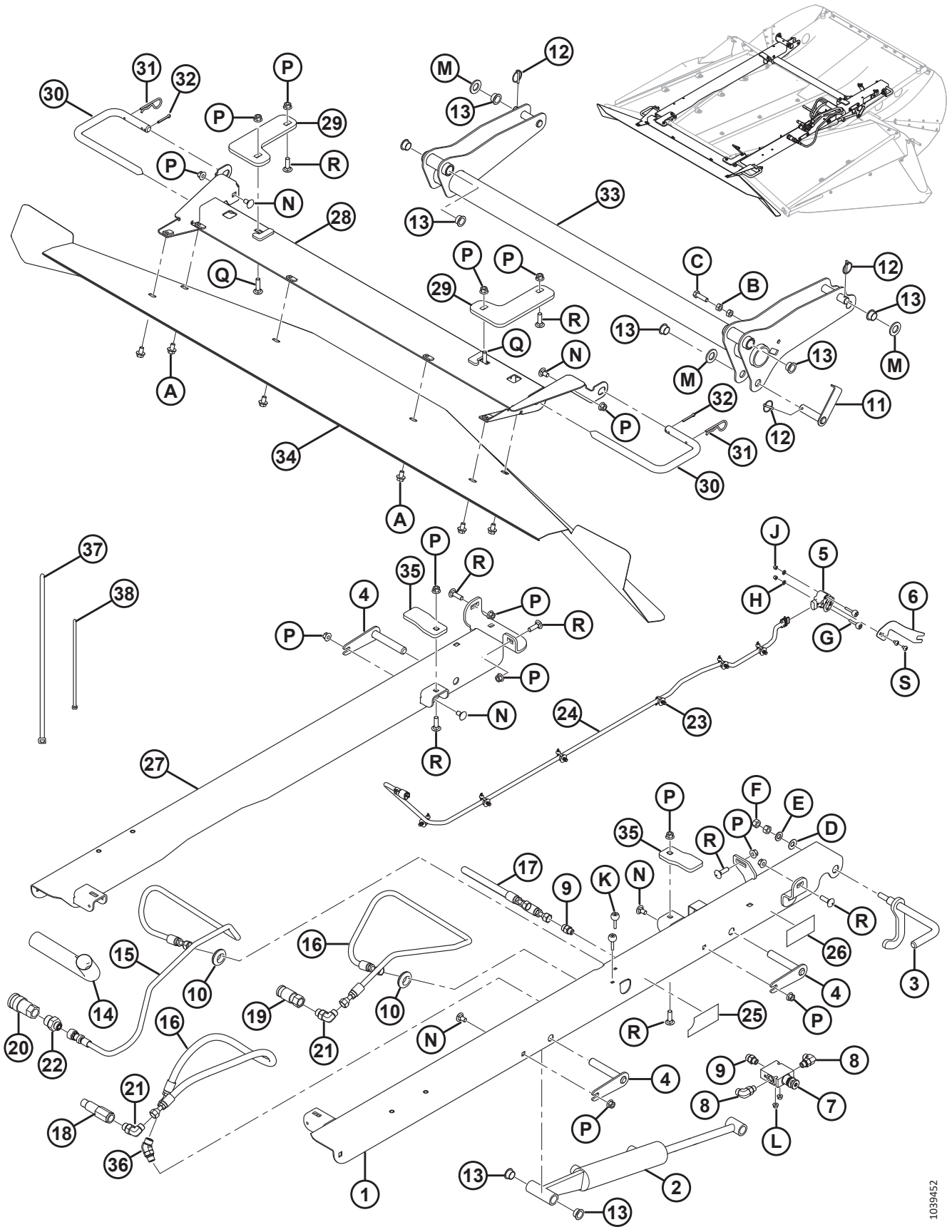
5.3 Swath Compressor Shield Assembly





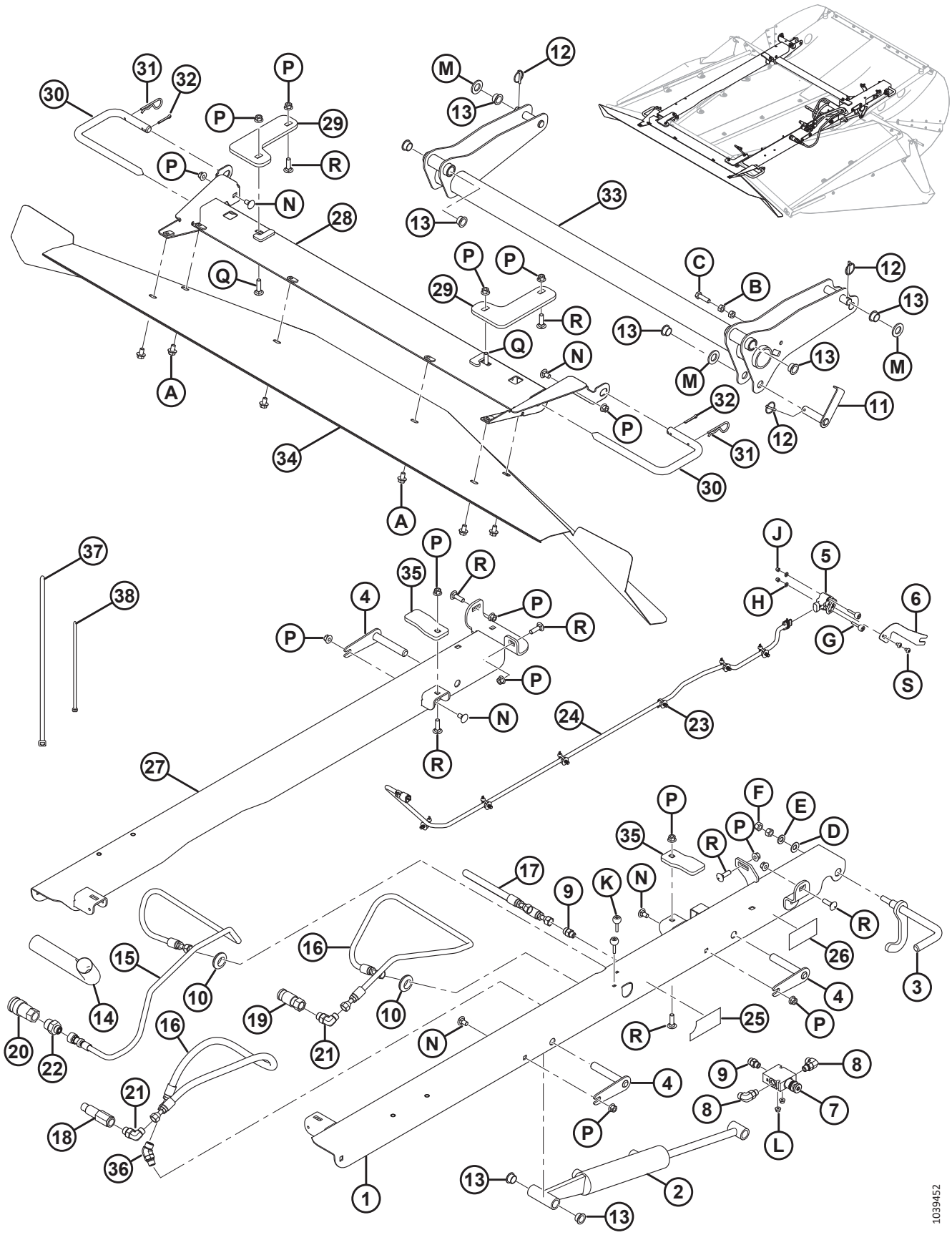
Ref	Part Number	Description	Qty	Serial Number
1	306660	SUPPORT – DEFLECTORS, WELDMENT	1	
2	306661	DEFLECTOR – LH WELDMENT	1	
	306662	DEFLECTOR – RH WELDMENT	1	
3	277323	SHEET – SWATH COMPRESSOR	1	
4	128697	DISC – RETAINER	21	
5	128737	BUSHING – FLANGE	2	
6	128729	ARM – LOWER	2	
7	203350	BUMPER – RUBBER	2	
8	128740	ANGLE – REAR TOP	1	
9	247693	ASSEMBLY – HANDLE	2	
10	277405	SUPPORT – REAR DEFLECTOR, LH	1	
	277414	SUPPORT – REAR DEFLECTOR, RH	1	
11	277409	STRAP – JOINING	2	
A	191393	SCREW – HEX SOC BTN HD M6 X 1 X 20-12.9-AF0C		
B	152668	NUT – HEX FLG CTR LOC M6 X 1-8-AA1J		
C	252872	SCREW – FLG BTN HD M10 X 1.5 X 30-10.9-AA1J		
D	16652	WASHER – FLAT		
E	184692	NUT – HEX NYLOC M10 X 1.5-8-AA1J		
F	184711	WASHER – FLAT REG M10-200HV-AA1J		
G	152439	BOLT – RHSSN M12 X 1.75 X 25-8.8-AA1J		
H	32247	WASHER – FLAT		
J	135337	NUT – HEX FLG CTR LOC M8 X 1.25-8-AA1J		

5.4 Swath Compressor Hydraulics and Supports



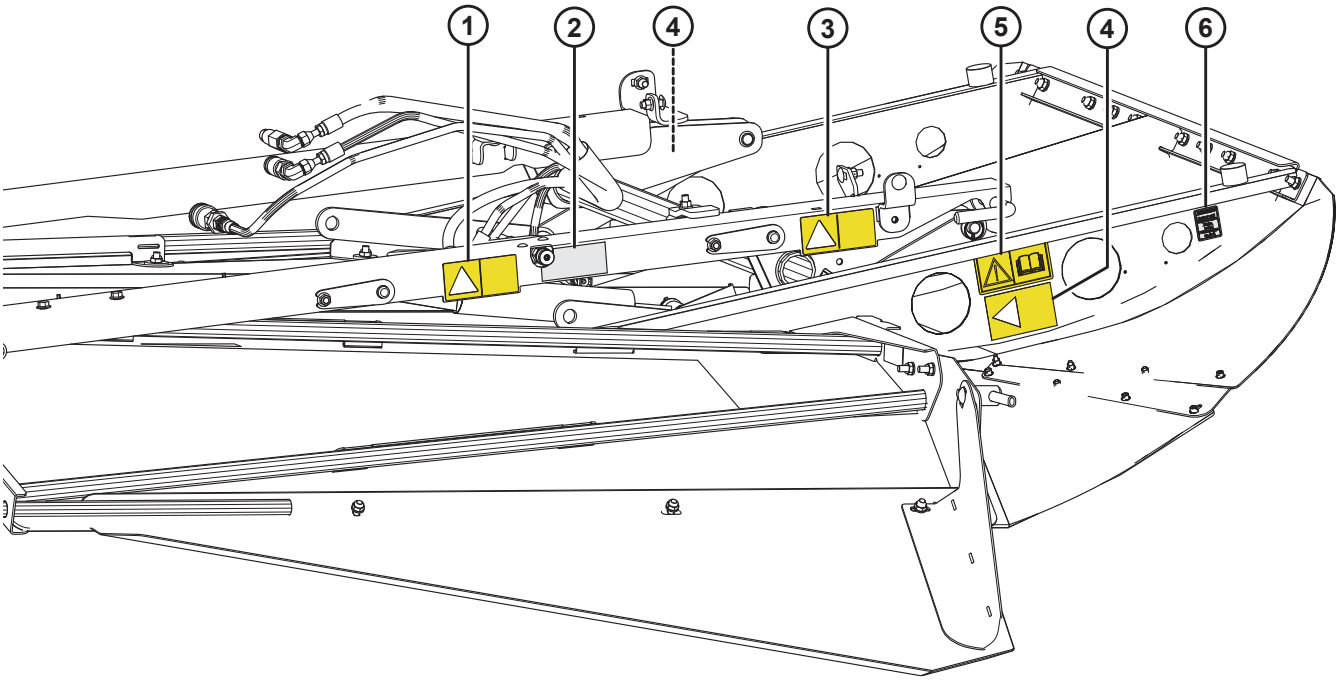
Ref	Part Number	Description	Qty	Serial Number
1	128780	SUPPORT – LH WELDMENT	1	
2	128764	CYLINDER	1	
3	128768	LEVER – LOCK PIN WELDMENT	1	
4	128788	PIN – PIVOT, WELDMENT	3	
5	128994	ROTARY SENSOR HV	1	
6	128773	ARM – SENSOR	1	
7	128789	VALVE – PRESSURE REDUCING	1	
8	136095	FITTING – ELBOW 90° HYD	2	
9	135778	FITTING – ADAPTER	2	
10	42046	GROMMET	2	
11	277331	PIN – CYLINDER, WELDMENT	1	
12	50193	PIN – LYNCH	3	
13	128737	BUSHING – FLANGE	10	
14	112940	SLEEVE	1	
15	277042	HOSE – HYD, .25 IN. I.D., 1400 MM LG, 100R17, METAL REIN.	1	
16	277041	HOSE – HYD, .25 IN. I.D., 1220 MM LG, 100R17, METAL REIN.	2	
17	232597	HOSE – HYD, .25 IN. I.D., 490 MM LG, 100R17, METAL REIN.	1	
18	135386	COUPLER – MALE HYD. 3/8 IN. FLAT FACE	1	
	111978	SEAL KIT		
19	135312	COUPLER – FEMALE HYD. 3/8 IN. FLAT FACE	1	
20	135474	COUPLER – HYDRAULIC, 1/2 IN. FEMALE FF	1	
21	136149	FITTING – ELBOW 90° HYD CW O-RING	2	
22	136194	FITTING – ADAPTER	1	
23	136655	FASTENER – FIR TREE MT W/ TIE	6	
24	209256	HARNESS – SWATH COMPRESSOR	1	
25	128973	DECAL – DOWN FORCE	1	
26	291638	DECAL – DECK LOWER LOCK	1	
27	128781	SUPPORT – RH WELDMENT	1	
28	128762	SUPPORT – FRONT PIVOT, WELDMENT	1	
29	128776	BAR – CLAMP	2	
30	128756	PIN – PIVOT	2	
31	13125	PIN – HAIR	2	
32	18648	PIN – COTTER 3/16 DIA X 1.25 ZP	2	
33	128770	ROCKSHAFT – LIFT, WELDMENT	1	
34	310620	DEFLECTOR – FRONT	1	
35	277435	BAR – CLAMP	2	
36	136144	FITTING – ELBOW 45° HYD	1	
37	30753	FASTENER – CABLE TIE, BLACK, 305 MM LG [1]	2	
38	21763	FASTENER – CABLE TIE, BLACK, 160 MM LG [1]	1	
A	136151	BOLT – HEX FLG HD TFL M10 X 1.5 X 16-8.8-AA1J		
B	30505	NUT – HEX M10 X 1.5-10-AA1J		
C	30628	BOLT – HEX HD M10 X 1.5 X 35-8.8-AA1J		

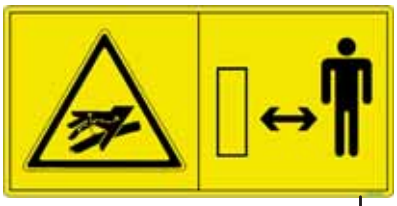
1. Shipped in manual bag.

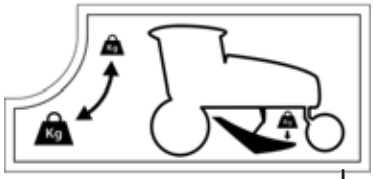

1039452

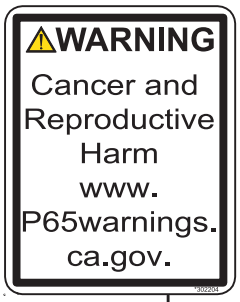
Ref	Part Number	Description	Qty	Serial Number
D	184595	WASHER – CONICAL SPRING 1/2 IN.		
E	184714	WASHER – FLAT REG M12-300HV-AA1J		
F	184694	NUT – HEX M12 X 1.75-8-AA1J		
G	136604	BOLT – RHSN TFL M5 X 0.8 X 40-8.8-AA1J		
H	184701	WASHER – FLAT LARGE M5-200HV		
J	197230	NUT – HEX NYLOC M5 X 0.8-8-AA1J		
K	184643	BOLT – RHSSN M6 X 1 X 35-8.8-AA1J		
L	152668	NUT – HEX FLG CTR LOC M6 X 1-8-AA1J		
M	18601	WASHER – SAE FLAT 13/16 I.D. X 1.5 IN. O.D. ZP		
N	136178	BOLT – RHSN M10 X 1.5 X 20-8.8-AA1J		
P	135799	NUT – HEX FLG CTR LOC M10 X 1.5-10-AA1J		
Q	152732	BOLT – RHSN M10 X 1.5 X 40-8.8-AA1J		
R	135691	BOLT – RHSN TFL M10 X 1.5 X 35-8.8-AA1J		
S	252291	SCREW – PAN HD M6 X 1 X 8-8.8-AA1J		

5.5 Decals









1039477

Ref	Part Number	Description	Qty	Serial Number
1	166466	DECAL – HIGH PRESSURE FLUID	1	
2	128973	DECAL – DOWN FORCE	1	
3	291638	DECAL – DECK LOWER LOCK [2]	1	
4	174683	DECAL – PINCH POINT	2	
5	184372	DECAL – READ MANUAL	1	
6	302204	DECAL – CA PROPOSITION 65	1	

2. May not be exactly as shown.

Chapter 6: Reference

The reference chapter provides additional information such as the torque specification and a unit conversion chart.

6.1 Torque Specifications

The following tables provide torque values for various bolts, cap screws, and hydraulic fittings. Refer to these values only when no other torque value has been specified in a given procedure.

- Tighten all bolts to the torque values specified in the charts below, unless you are directed otherwise in this manual.
- Replace removed hardware with hardware of the same strength and grade.
- Refer to the torque value tables as a guide when periodically checking the tightness of bolts.
- Understand the torque categories for bolts and cap screws by reading the markings on their heads.

Jam nuts

Jam nuts require less torque than nuts used for other purposes. When applying torque to finished jam nuts, multiply the torque applied to regular nuts by 0.65 to obtain the modified torque value.

Self-tapping screws

Refer to the standard torque values when installing the self-tapping screws. Do **NOT** install the self-tapping screws on structural or otherwise critical joints.

6.1.1 Metric Bolt Specifications

Specifications are provided for the appropriate final torque values to secure various sizes of metric bolts.

NOTE:

The torque values provided in the following metric bolt torque tables apply to hardware installed dry; that is, hardware with no grease, oil, or threadlocker on the threads or heads. Do **NOT** add grease, oil, or threadlocker to bolts or cap screws unless you are directed to do so in this manual.

Table 6.1 Metric Class 8.8 Bolts and Class 9 Free Spinning Nut

Nominal Size (A)	Torque (Nm)		Torque (lbf·ft) (*lbf·in)	
	Min.	Max.	Min.	Max.
3-0.5	1.4	1.6	*13	*14
3.5-0.6	2.2	2.5	*20	*22
4-0.7	3.3	3.7	*29	*32
5-0.8	6.7	7.4	*59	*66
6-1.0	11.4	12.6	*101	*112
8-1.25	28	30	20	23
10-1.5	55	60	40	45
12-1.75	95	105	70	78
14-2.0	152	168	113	124
16-2.0	236	261	175	193
20-2.5	460	509	341	377
24-3.0	796	879	589	651

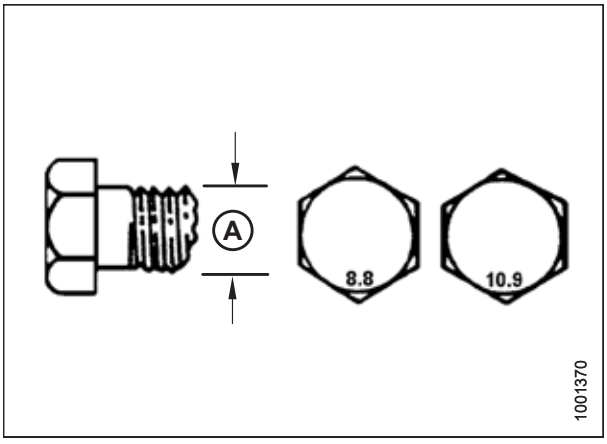


Figure 6.1: Bolt Grades

Table 6.2 Metric Class 8.8 Bolts and Class 9 Distorted Thread Nut

Nominal Size (A)	Torque (Nm)		Torque (lbf·ft) (*lbf·in)	
	Min.	Max.	Min.	Max.
3-0.5	1	1.1	*9	*10
3.5-0.6	1.5	1.7	*14	*15
4-0.7	2.3	2.5	*20	*22
5-0.8	4.5	5	*40	*45
6-1.0	7.7	8.6	*69	*76
8-1.25	18.8	20.8	*167	*185
10-1.5	37	41	28	30
12-1.75	65	72	48	53
14-2.0	104	115	77	85
16-2.0	161	178	119	132
20-2.5	314	347	233	257
24-3.0	543	600	402	444

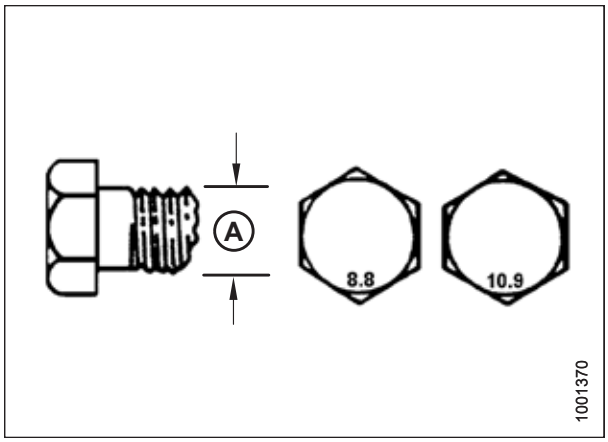


Figure 6.2: Bolt Grades

Table 6.3 Metric Class 10.9 Bolts and Class 10 Free Spinning Nut

Nominal Size (A)	Torque (Nm)		Torque (lbf·ft) (*lbf·in)	
	Min.	Max.	Min.	Max.
3-0.5	1.8	2	*18	*19
3.5-0.6	2.8	3.1	*27	*30
4-0.7	4.2	4.6	*41	*45
5-0.8	8.4	9.3	*82	*91
6-1.0	14.3	15.8	*140	*154
8-1.25	38	42	28	31
10-1.5	75	83	56	62
12-1.75	132	145	97	108
14-2.0	210	232	156	172
16-2.0	326	360	242	267
20-2.5	637	704	472	521
24-3.0	1101	1217	815	901

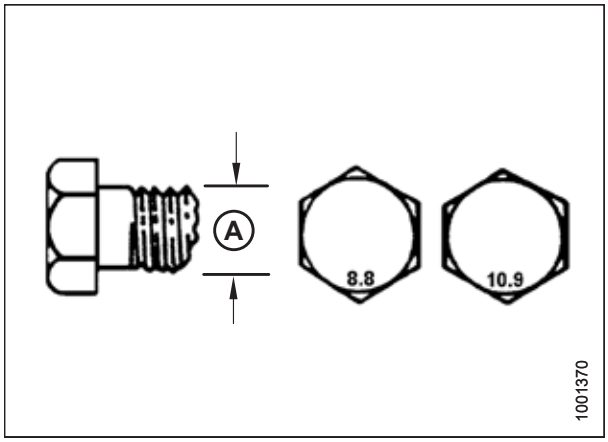


Figure 6.3: Bolt Grades

Table 6.4 Metric Class 10.9 Bolts and Class 10 Distorted Thread Nut

Nominal Size (A)	Torque (Nm)		Torque (lbf·ft) (*lbf·in)	
	Min.	Max.	Min.	Max.
3-0.5	1.3	1.5	*12	*13
3.5-0.6	2.1	2.3	*19	*21
4-0.7	3.1	3.4	*28	*31
5-0.8	6.3	7	*56	*62
6-1.0	10.7	11.8	*95	*105
8-1.25	26	29	19	21
10-1.5	51	57	38	42
12-1.75	90	99	66	73
14-2.0	143	158	106	117
16-2.0	222	246	165	182
20-2.5	434	480	322	356
24-3.0	750	829	556	614

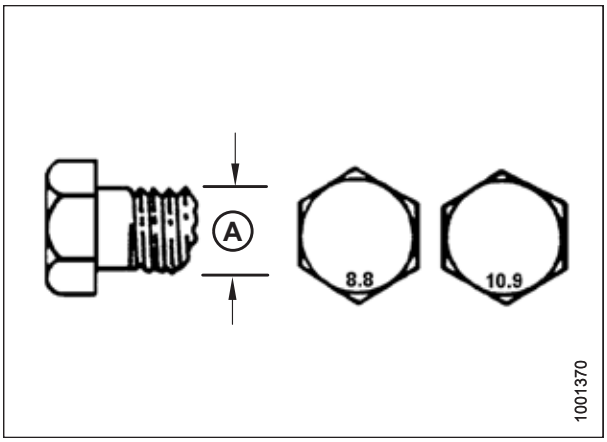


Figure 6.4: Bolt Grades

6.1.2 Metric Bolt Specifications – Cast Aluminum

Specifications are provided for the appropriate final torque values for various sizes of metric bolts in cast aluminum.

NOTE:

The torque values provided in the following metric bolt torque tables apply to hardware installed dry; that is, hardware with no grease, oil, or threadlocker on the threads or heads. Do **NOT** add grease, oil, or threadlocker to bolts or cap screws unless you are directed to do so in this manual.

Table 6.5 Metric Bolt Bolting into Cast Aluminum

Nominal Size (A)	Bolt Torque			
	8.8 (Cast Aluminum)		10.9 (Cast Aluminum)	
	Nm	lbf·ft	Nm	lbf·ft
M3	–	–	–	1
M4	–	–	4	2.6
M5	–	–	8	5.5
M6	9	6	12	9
M8	20	14	28	20
M10	40	28	55	40
M12	70	52	100	73
M14	–	–	–	–
M16	–	–	–	–

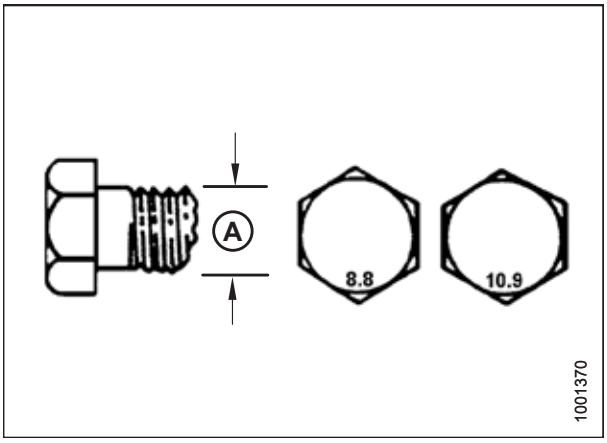


Figure 6.5: Bolt Grades

6.1.3 O-Ring Boss Hydraulic Fittings – Adjustable

The standard torque values are provided for adjustable hydraulic fittings. If a procedure specifies a different torque value for the same type and size of fitting found in this topic, refer to the value specified in the procedure instead.

1. Inspect O-ring (A) and seat (B) for dirt or defects.
2. Back off lock nut (C) as far as possible. Ensure that washer (D) is loose and that it is pushed toward lock nut (C) as far as possible.
3. Ensure that O-ring (A) is **NOT** on the threads. Adjust O-ring (A) if necessary.
4. Apply hydraulic system oil to O-ring (A).

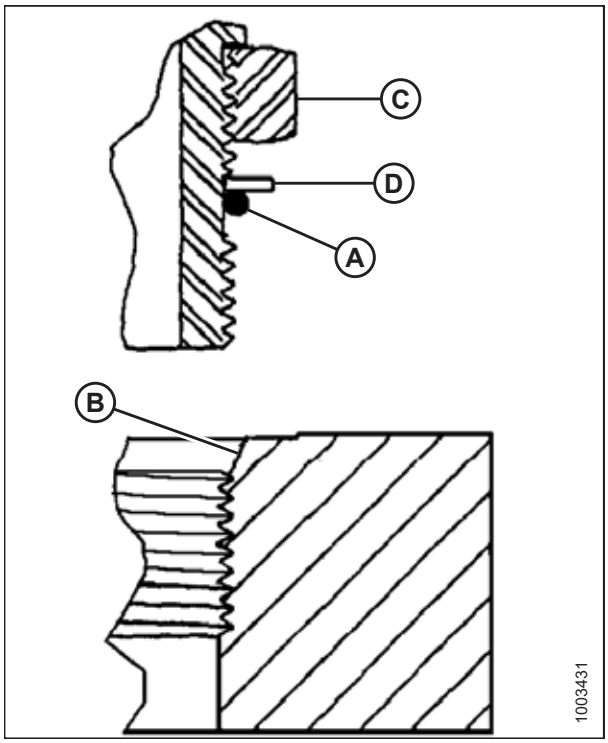


Figure 6.6: Hydraulic Fitting

5. Install fitting (B) into the port until backup washer (D) and O-ring (A) contact part face (E).
6. Position the angle fittings by unscrewing no more than one turn.
7. Turn lock nut (C) down to washer (D) and tighten it to the torque value indicated in the table. Use two wrenches, one on fitting (B) and the other on lock nut (C).
8. Verify the final condition of the fitting.

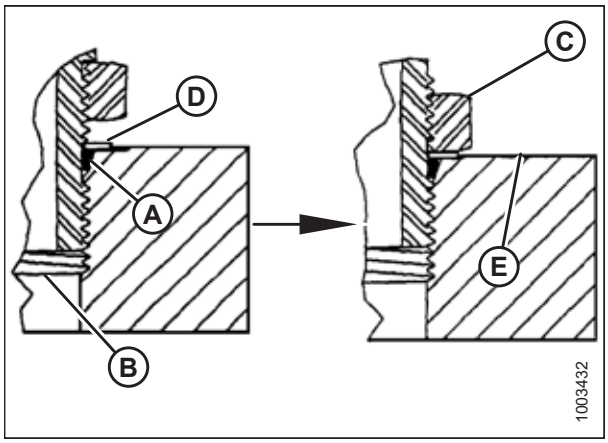


Figure 6.7: Hydraulic Fitting

Table 6.6 O-Ring Boss (ORB) Hydraulic Fittings – Adjustable and Non-Adjustable

SAE Dash Size	Thread Size (in.)	Torque Value[3]	
		Nm	lbf·ft (*lbf·in)
-2	5/16–24	10–11	*89–97
-3	3/8–24	18–20	*159–177
-4	7/16–20	29–32	21–24
-5	1/2–20	32–35	24–26
-6	9/16–18	40–44	30–32
-8	3/4–16	70–77	52–57
-10	7/8–14	115–127	85–94
-12	1 1/16–12	183–201	135–148
-14	1 3/16–12	237–261	175–193
-16	1 5/16–12	271–298	200–220
-20	1 5/8–12	339–373	250–275
-24	1 7/8–12	414–455	305–336
-32	2 1/2–12	509–560	375–413

6.1.4 O-Ring Boss Hydraulic Fittings – Non-Adjustable

The standard torque values for non-adjustable hydraulic fittings are provided. If a procedure specifies a different torque value for the same type and size of fitting found in this topic, use the value specified in the procedure instead.

1. Inspect O-ring (A) and seat (B) for dirt or defects.
2. Ensure that O-ring (A) is **NOT** on the threads. Adjust O-ring (A) if necessary.
3. Apply hydraulic system oil to the O-ring.
4. Install fitting (C) into the port until the fitting is hand-tight.
5. Torque fitting (C) according to values in Table *6.7, page 79*.
6. Verify the final condition of the fitting.

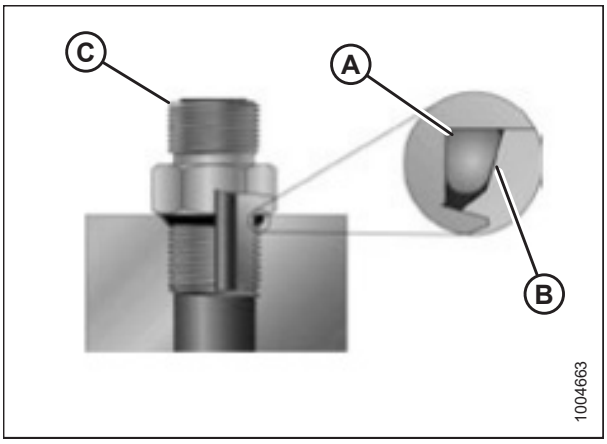


Figure 6.8: Hydraulic Fitting

Table 6.7 O-Ring Boss (ORB) Hydraulic Fittings – Adjustable and Non-Adjustable

SAE Dash Size	Thread Size (in.)	Torque Value[3]	
		Nm	lbf·ft (*lbf·in)
-2	5/16–24	10–11	*89–97
-3	3/8–24	18–20	*159–177
-4	7/16–20	29–32	21–24
-5	1/2–20	32–35	24–26

3. Torque values shown are based on lubricated connections as in reassembly.

Table 6.7 O-Ring Boss (ORB) Hydraulic Fittings – Adjustable and Non-Adjustable (continued)

SAE Dash Size	Thread Size (in.)	Torque Value[4]	
		Nm	lbf·ft (*lbf·in)
-6	9/16–18	40–44	30–32
-8	3/4–16	70–77	52–57
-10	7/8–14	115–127	85–94
-12	1 1/16–12	183–201	135–148
-14	1 3/16–12	237–261	175–193
-16	1 5/16–12	271–298	200–220
-20	1 5/8–12	339–373	250–275
-24	1 7/8–12	414–455	305–336
-32	2 1/2–12	509–560	375–413

6.1.5 O-Ring Face Seal Hydraulic Fittings

The standard torque values are provided for O-ring face seal hydraulic fittings. If a procedure specifies a different torque value for the same type and size of fitting found in this topic, refer to the value specified in the procedure instead.

Torque values are shown in the Table *6.8, page 81*.

1. Ensure that the sealing surfaces and the fitting threads are free of burrs, nicks, scratches, and any foreign material.

Figure 6.9: Hydraulic Fitting

4. Torque values shown are based on lubricated connections as in reassembly.

2. Apply hydraulic system oil to O-ring (B).
3. Align the tube or hose assembly so that the flat face of sleeve (A) or (C) comes into full contact with O-ring (B).
4. Thread tube or hose nut (D) until it is hand-tight. The nut should turn freely until it bottoms out.
5. Torque the fittings according to values in Table *6.8, page 81*.

   NOTE:

   If applicable, hold the hex flange on fitting body (E) to prevent the rotation of the fitting body and the hose when tightening fitting nut (D).
6. Use three wrenches when assembling unions or joining two hoses together.
7. Verify the final condition of the fitting.

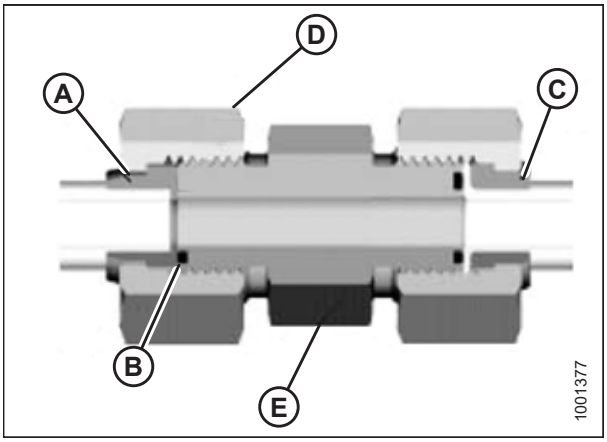


Figure 6.10: Hydraulic Fitting

Table 6.8 O-Ring Face Seal (ORFS) Hydraulic Fittings

SAE Dash Size	Thread Size (in.)	Tube O.D. (in.)	Torque Value[5]	
			Nm	lbf·ft
-3	Note[6]	3/16	–	–
-4	9/16	1/4	25–28	18–21
-5	Note[6]	5/16	–	–
-6	11/16	3/8	40–44	30–32
-8	13/16	1/2	55–61	41–45
-10	1	5/8	80–88	59–65
-12	1 3/16	3/4	115–127	85–94
-14	Note[6]	7/8	–	–
-16	1 7/16	1	150–165	111–122
-20	1 11/16	1 1/4	205–226	151–167
-24	2	1 1/2	315–347	232–256
-32	2 1/2	2	510–561	376–414

6.1.6 Tapered Pipe Thread Fittings

The standard torque values are provided for tapered pipe thread fittings. If a procedure specifies a different torque value for the same type and size of fitting found in this topic, refer to the value specified in the procedure instead.

Assemble pipe fittings as follows:

1. Ensure that the fitting and the port threads are free of burrs, nicks, scratches, and any other form of contamination.
2. Apply paste-type pipe thread sealant to the external pipe threads.
3. Thread the fitting into the port until it is hand-tight.

5. Torque values and angles shown are based on lubricated connection as in reassembly.
6. O-ring face seal type end not defined for this tube size.

4. Torque the connector to the appropriate torque angle. The turns from finger tight (TFFT) and flats from finger tight (FFFT) values are shown in Table *6.9, page 82*. Ensure that the tube end of a shaped connector (typically a 45° or 90° elbow) is aligned to receive the incoming tube or hose assembly. Always finish the alignment of the fitting in the direction of tightening. Never loosen the threaded connectors to achieve alignment.

5. Clean all residue and any excess thread conditioner with an appropriate cleaner.

6. Inspect the final condition of the fitting. Pay special attention to the possibility of cracks in the port opening.

7. Mark the final position of the fitting. If a fitting leaks, disassemble the fitting and check it for damage.

   NOTE:

   The failure of fittings due to over-torquing may not be evident until the fittings are disassembled and inspected.

Table 6.9 Hydraulic Fitting Pipe Thread

Tapered Pipe Thread Size	Recommended TFFT	Recommended FFFT
1/8–27	2–3	12–18
1/4–18	2–3	12–18
3/8–18	2–3	12–18
1/2–14	2–3	12–18
3/4–14	1.5–2.5	12–18
1–11 1/2	1.5–2.5	9–15
1 1/4–11 1/2	1.5–2.5	9–15
1 1/2–11 1/2	1.5–2.5	9–15
2–11 1/2	1.5–2.5	9–15

6.2 Conversion Chart

This manual uses both SI units (including metric) and US customary units (sometimes referred to as standard units) of measurement. A list of those units along with their abbreviations and conversion factors is provided here for your reference.

Table 6.10 Conversion Chart

Quantity	SI Units (Metric)		Factor	US Customary Units (Standard)	
	Unit Name	Abbreviation		Unit Name	Abbreviation
Area	hectare	ha	x 2.4710 =	acre	acres
Flow	liters per minute	L/min	x 0.2642 =	US gallons per minute	gpm
Force	Newton	N	x 0.2248 =	pound force	lbf
Length	millimeter	mm	x 0.0394 =	inch	in.
Length	meter	m	x 3.2808 =	foot	ft.
Power	kilowatt	kW	x 1.341 =	horsepower	hp
Pressure	kilopascal	kPa	x 0.145 =	pounds per square inch	psi
Pressure	megapascal	MPa	x 145.038 =	pounds per square inch	psi
Pressure	bar (Non-SI)	bar	x 14.5038 =	pounds per square inch	psi
Torque	Newton meter	Nm	x 0.7376 =	pound feet or foot pounds	lbf·ft
Torque	Newton meter	Nm	x 8.8507 =	pound inches or inch pounds	lbf·in
Temperature	degrees Celsius	°C	(°C x 1.8) + 32 =	degrees Fahrenheit	°F
Velocity	meters per minute	m/min	x 3.2808 =	feet per minute	ft/min
Velocity	meters per second	m/s	x 3.2808 =	feet per second	ft/s
Velocity	kilometers per hour	km/h	x 0.6214 =	miles per hour	mph
Volume	liter	L	x 0.2642 =	US gallon	US gal
Volume	milliliter	mL	x 0.0338 =	ounce	oz.
Volume	cubic centimeter	cm^3 or cc	x 0.061 =	cubic inch	$in.^3$
Weight	kilogram	kg	x 2.2046 =	pound	lb.

Index

A

C

D

E

Predelivery Checklist

Review this checklist before delivering the swath compressor to the Customer. The completed checklist should be retained by either the Operator or the Dealer.

CAUTION

Follow the instructions carefully. Pay attention to safety-related messages, and avoid unsafe practices.

✓	Item	Reference
	Check for shipping damage or missing parts. Be sure all shipping dunnage is removed.	—
	Check for loose hardware. Tighten loose hardware to the required torque specification.	*6.1 Torque Specifications, page 75*
	Raise and lower the swath compressor to check for linkage binding. When the swath compressor is fully raised, the rubber bumpers at the rear should contact the windrower frame. **NOTE:** If binding occurs, add/remove washers where the rear supports are fastened to the outside of the frame.	*2.2.1 Installing Frame, page 20*
	Ensure that the sensor arm does not bind when raising or lowering the swath compressor.	*2.2.1 Installing Frame, page 20*
	Ensure that the fuel filter sensor wire does not contact the frame when it is fully raised.	*2.2.1 Installing Frame, page 20*
	Check hydraulic hose routing for clearance when raising or lowering the swath compressor. Adjust as necessary.	*2.2.3 Connecting Hydraulics, page 26*
	Ensure that the hydraulic hoses are secured with cable ties.	*2.2.3 Connecting Hydraulics, page 26*
	Ensure that the swath compressor lock is functioning properly.	*3.3.6 Locking and Unlocking Swath Compressor, page 52*
	Check for hydraulic leaks.	—
	Ensure that the side deflectors are set evenly to the desired position.	*3.3.5 Adjusting Side Deflectors, page 52*
	Ensure that the latest software is installed on the windrower.	—

Date checked: _____ Checked by: _____

Recommended Fluids and Lubricants

Ensure that your machine operates at top efficiency by using clean fluids and lubricants only.

- 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 with 1% max. molybdenum disulphide (NLGI Grade 2) lithium base	As required unless otherwise specified	—

MacDon

CUSTOMERS
MacDon.com

DEALERS
Portal.MacDon.com

Printed in Canada