

M1240 Self-Propelled Windrower

2016 Case Drain Routing Update Kit (MD #291306)
Installation Instructions

214242 Revision A
Original Instruction

M1240 Self-Propelled Windrower



1016391

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Introduction

The 2016 Case Drain Routing Update Kit (MD #291306) includes parts needed to make important updates to MacDon 2016 model year M1240 Self-Propelled Windrowers. This document explains how to install this kit. A list of parts included in the kit is provided in Chapter 2 *Parts List, page 5*.

The following conventions are used in this document:

- Right-hand (RH) and left-hand (LH) are determined from the operator's position, facing forward with the windrower in cab-forward position.
- Unless otherwise noted, use the standard torque values provided in the windrower operator's manual and technical manual.

NOTE:

Keep your MacDon publications up-to-date. The most current version of this instruction can be downloaded from our Dealer-only site (<https://portal.macdon.com>) (login required).

NOTE:

This document is not currently available in any language except English.

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1 Safety

1.1 Signal Words

Three signal words, **DANGER**, **WARNING**, and **CAUTION**, are used to alert you to hazardous situations. The appropriate signal word for each situation has been selected using the following guidelines:

DANGER

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

WARNING

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

CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may be used to alert against unsafe practices.

1.2 General Safety

CAUTION

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

Protect yourself.

- When assembling, operating, and servicing machinery, wear all protective clothing and personal safety devices that could be necessary for 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
- Be aware that exposure to loud noises can cause hearing impairment or loss. Wear suitable hearing protection devices such as ear muffs or ear plugs to help protect against objectionable or loud noises.



Figure 1.1: Safety Equipment



Figure 1.2: Safety Equipment

- Provide a first aid kit for use in case of emergencies.
- Keep a fire extinguisher on the machine. Be sure fire extinguisher is properly maintained. Be familiar with its proper use.
- Keep young children away from machinery at all times.
- Be aware that accidents often happen when Operator is tired or in a hurry. Take time to consider safest way. Never ignore warning signs of fatigue.

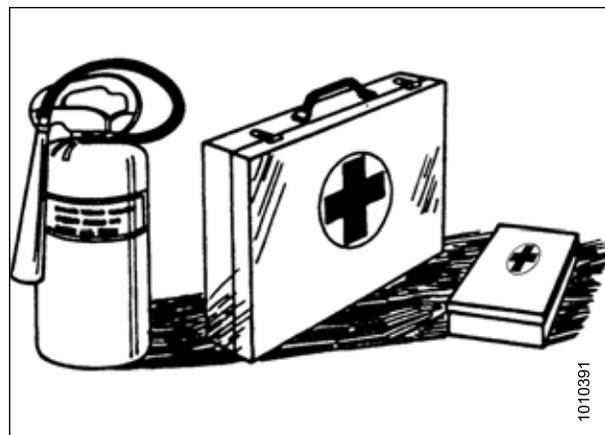


Figure 1.3: Safety Equipment

SAFETY

- Wear close-fitting clothing and cover long hair. Never wear dangling items such as scarves or bracelets.
- Keep all shields in place. **NEVER** alter or remove safety equipment. Make sure driveline guards can rotate independently of shaft and can telescope freely.
- Use only service and repair parts made or approved by equipment manufacturer. Substituted parts may not meet strength, design, or safety requirements.



Figure 1.4: Safety around Equipment

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

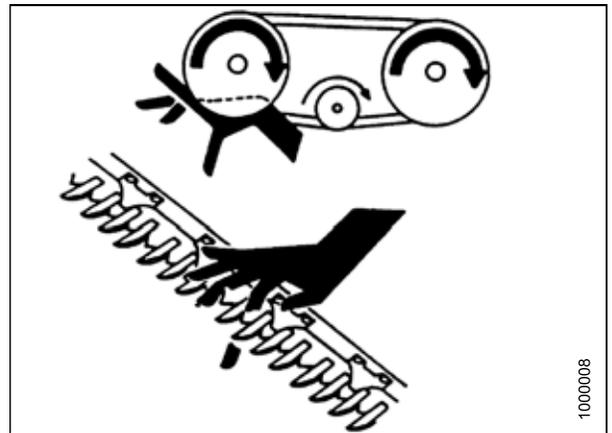


Figure 1.5: Safety around Equipment

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

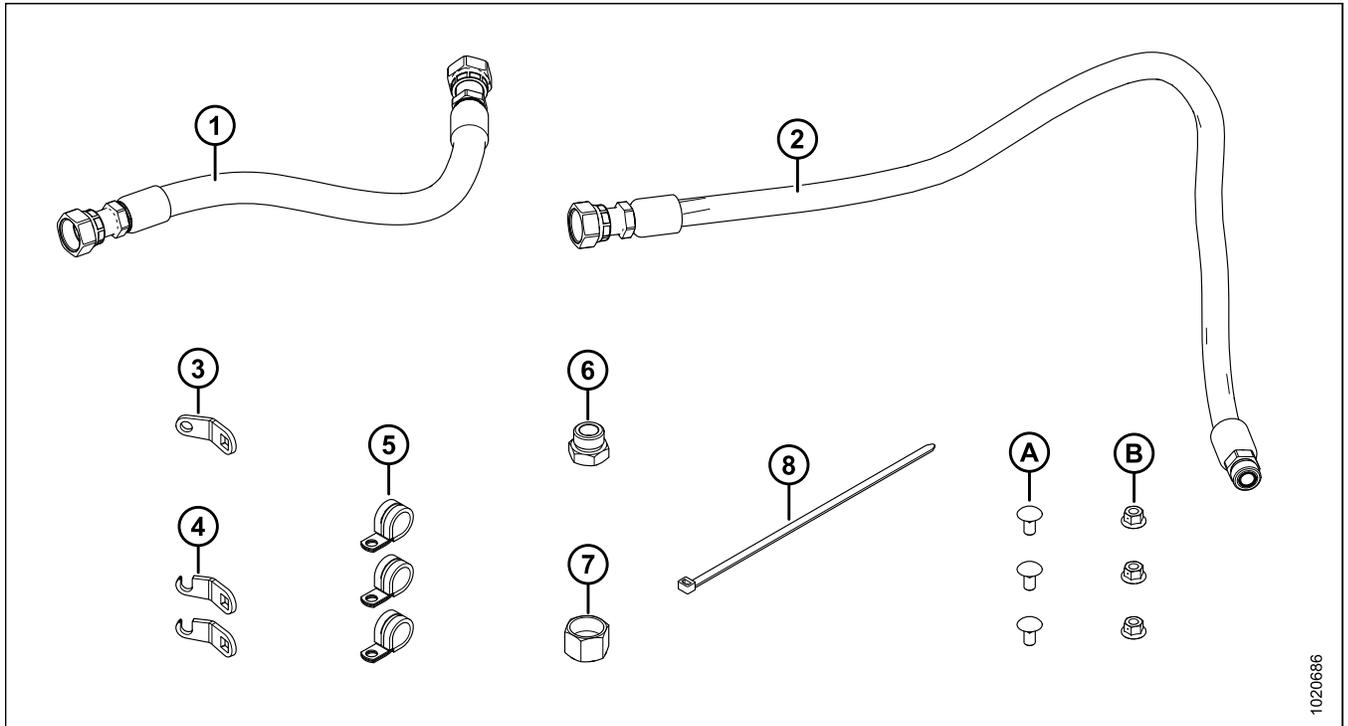


Figure 1.6: Safety around Equipment

2 Parts List

2.1 Case Drain Routing Update Kit

The following parts are included in this kit.



Ref	Part Number	Description	Quantity
1	201725	HOSE – HYDRAULIC, 3/4 IN. I.D., 560 MM LG	1
2	291237	HOSE – HYDRAULIC, 0.625 IN. I.D., 1155 MM LG	1
3	291276	BRACKET – SUPPORT	1
4	291307	BRACKET – SUPPORT, OPEN END	2
5	209018	CLAMP – INSULATED 7/8 IN.	3
6	103575	PLUG – HEX, C/W O-RING	1
7	135889	CAP – HYDRAULIC SAE, 12 ORFS	1
8	30753	FASTENER – CABLE TIE, BLACK	1
A	184657	BOLT – RHSSN M10 X 1.5 X 20-8.8-A3L	3
B	135799	NUT – HEX FLG CTR LOC M10 X 1.5-10-A3L	3

3 Case Drain Routing Update Kit Installation Instructions

To install the 2016 Case Drain Routing Update kit, follow these procedures in order.

3.1 Installing Support Brackets

CAUTION

To avoid bodily injury or death from 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. Shut down the engine and remove the key.
2. Open the hood.
 - a. Move latch (A) towards right cab-forward side of the windrower.
 - b. Grasp louver (B), and lift hood to open.

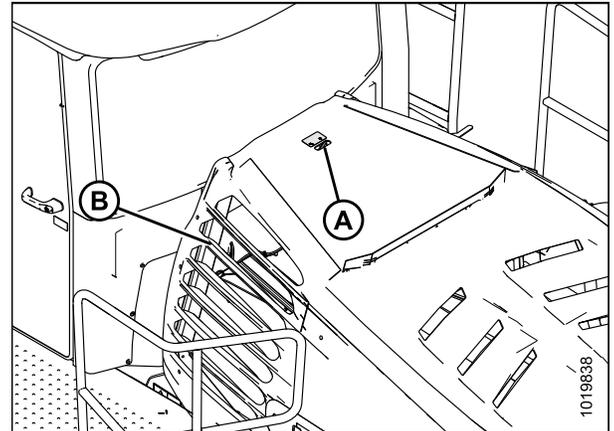


Figure 3.1: Engine Compartment Hood

3. Remove top bolt (A) and washer (B) from the engine gearbox cover. Discard washer (B).

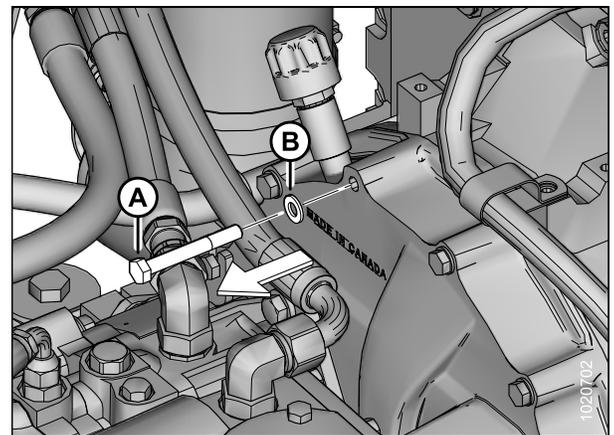


Figure 3.2: Engine Gearbox Cover

CASE DRAIN ROUTING UPDATE KIT INSTALLATION INSTRUCTIONS

- Slide new support bracket (A) (MD #291276) onto bolt (B) in the orientation shown.
- Apply red thread locker to the bolt threads and reinstall. Torque to 40.5 Nm (30 lbf·ft).

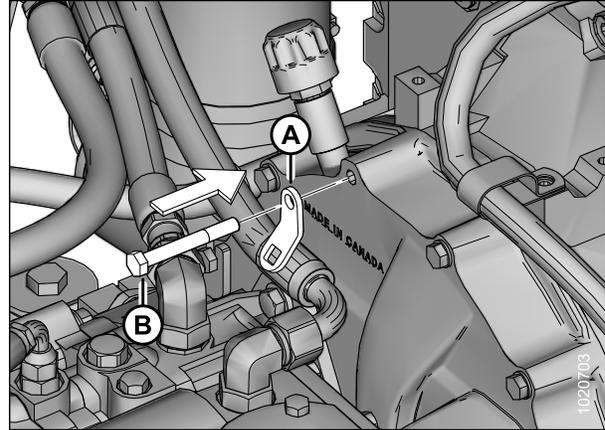


Figure 3.3: Engine Gearbox Cover

- Try to remove side screws (A) completely from the engine gearbox cover.
- NOTE:**
One or both side screws (A) may not be able to be fully removed due to the screw head hitting the pump flange.
- If screw is removed completely, discard washer (B); if not, leave washer in place.

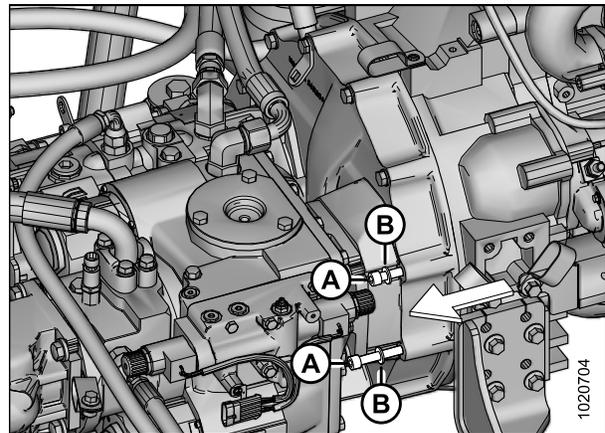


Figure 3.4: Engine Gearbox Cover

- Apply red thread locker to any exposed screw threads and reinstall in engine gearbox cover.
- Hook new open ended support brackets (A) (MD #291307) onto screws (B) in the orientation shown.

NOTE:

If washer (C) has not been removed make sure it is placed between the head of the screw and the bracket as shown.

- Torque screws to 40.5 Nm (30 lbf·ft).

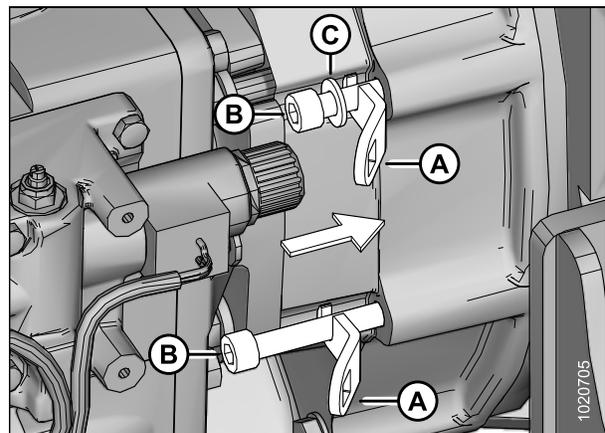


Figure 3.5: Engine Gearbox Cover

3.2 Rerouting Case Drain Hoses

CAUTION

To avoid bodily injury or death from 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.

NOTE:

To reduce spillage, use a shop vacuum to create suction on the hydraulic oil tank reservoir when connecting or disconnecting a line.

1. Located underneath the left side of the windrower, disconnect 90° elbow fitting (A) from the bottom of the header pump.

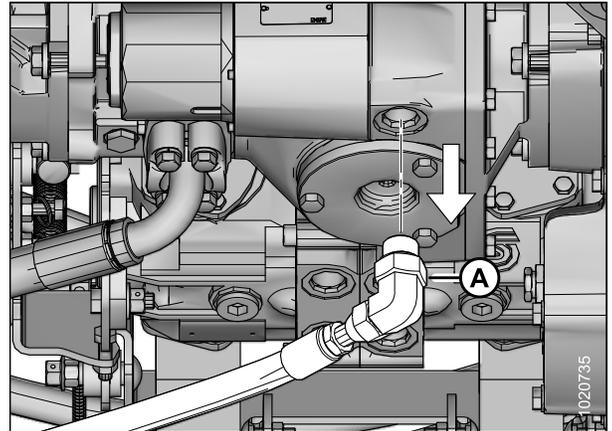


Figure 3.6: Bottom of Header Pump

2. Close opening in header pump with new plug (A) (MD #103575).
3. Remove 90° elbow fitting (B) from hose.

NOTE:

90° elbow fitting is no longer required.

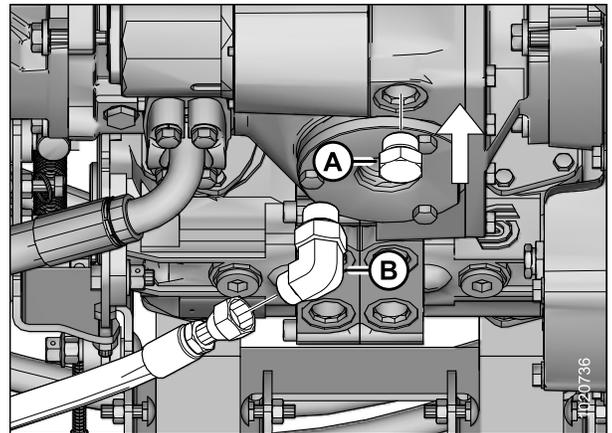


Figure 3.7: Bottom of Header Pump

CASE DRAIN ROUTING UPDATE KIT INSTALLATION INSTRUCTIONS

NOTE:

Parts removed from illustrations for clarity.

4. Connect new hose (A) (MD #291237) to hose end (B) and route the new hose up over the engine gearbox cover towards the tee fitting (C) going into the oil cooler.

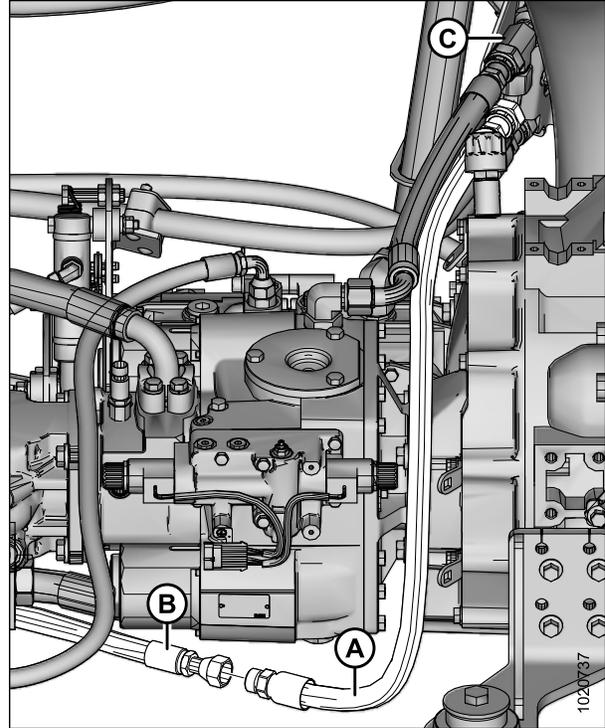


Figure 3.8: Hose Routing

NOTE:

The access panel in the bottom of the cooling module (not illustrated) can be removed to allow better accessibility to the top of the header pump.

5. Loosen both ends of hose (A) and detach from tee fitting (B) (attached to the oil cooler) and 90° elbow fitting (C) (on top of the header pump).

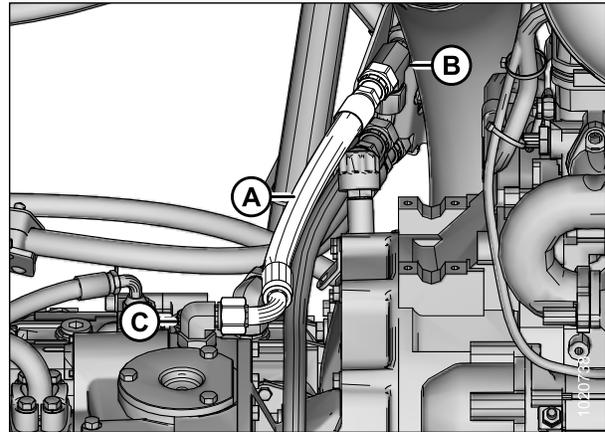


Figure 3.9: Top of Header Pump

CASE DRAIN ROUTING UPDATE KIT INSTALLATION INSTRUCTIONS

- Temporarily cap the 90° elbow fitting with new cap (A) (MD #135889).
- Attach new hose (B) (MD #291237) to the tee fitting (C) attached to the oil cooler. Same tee fitting that the hose was removed from in Step 5.

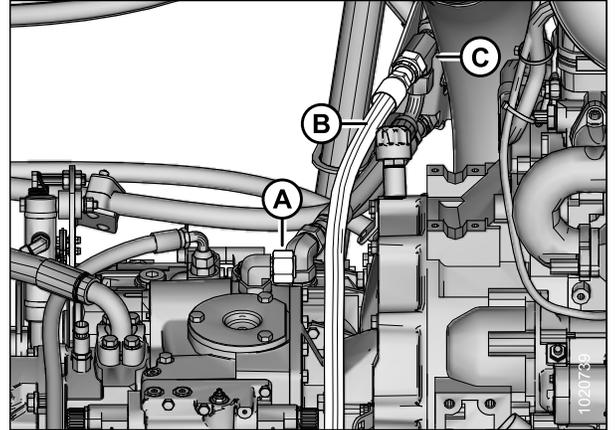


Figure 3.10: Top of Header Pump

- Loosen the capped 90° elbow fitting (A) from the top of the header pump. Rotate the fitting 45° towards the cab, as shown. Tighten fitting.

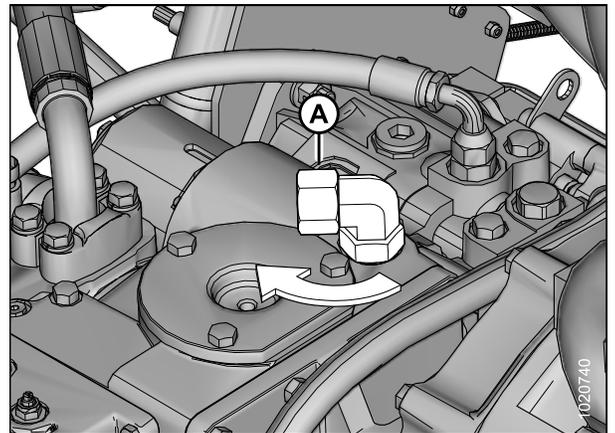


Figure 3.11: Top of Header Pump

- Loosen cap (A) on the tee attached to the hydraulic oil tank. Do not remove.
- Remove the temporary cap (B) (MD #135889) that was installed onto the 90° elbow fitting.

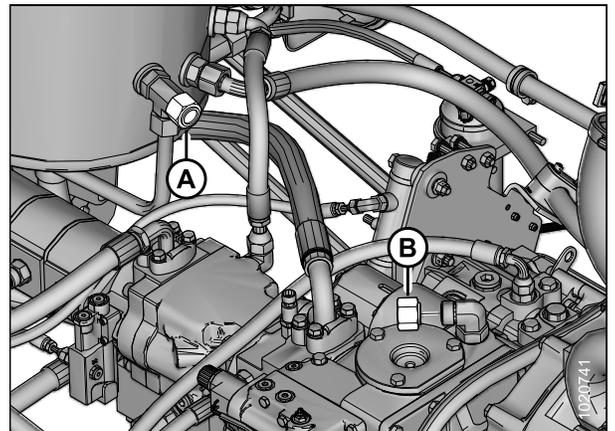


Figure 3.12: Hydraulic Oil Tank/Header Pump

CASE DRAIN ROUTING UPDATE KIT INSTALLATION INSTRUCTIONS

11. Install new hose (A) (MD #201725) onto the 90° elbow fitting (B).
12. Remove cap from the tee fitting (C) attached to the hydraulic oil tank and install other end of new hose (A).

NOTE:

Discard the temporary caps once hydraulic connections are complete.

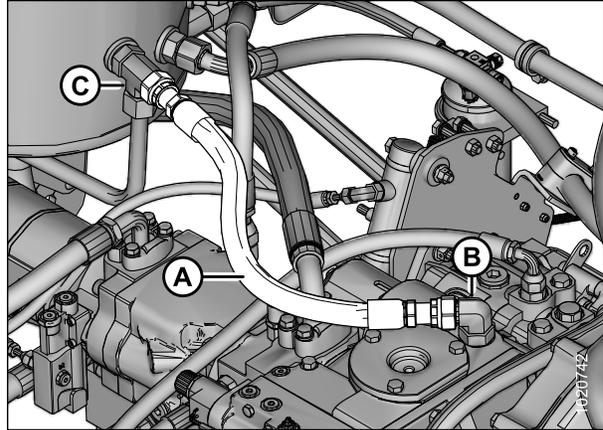


Figure 3.13: Hydraulic Oil Tank/Header Pump

13. Slide three new insulated clamps (A) (MD #209018) onto new hose (MD #291237) in the orientation shown. Top clamp will face the opposite direction of the other two.
14. Use new bolts (B) (MD #184657) and nuts (C) (MD #135799) to secure the insulated clamps to the support brackets previously installed on the engine gearbox cover.
15. Adjust slack in hose to ensure hose is not close to fan and that it clears the bottom edge of the header pump.
16. Tighten nuts (C) to secure insulated clamps to hose.

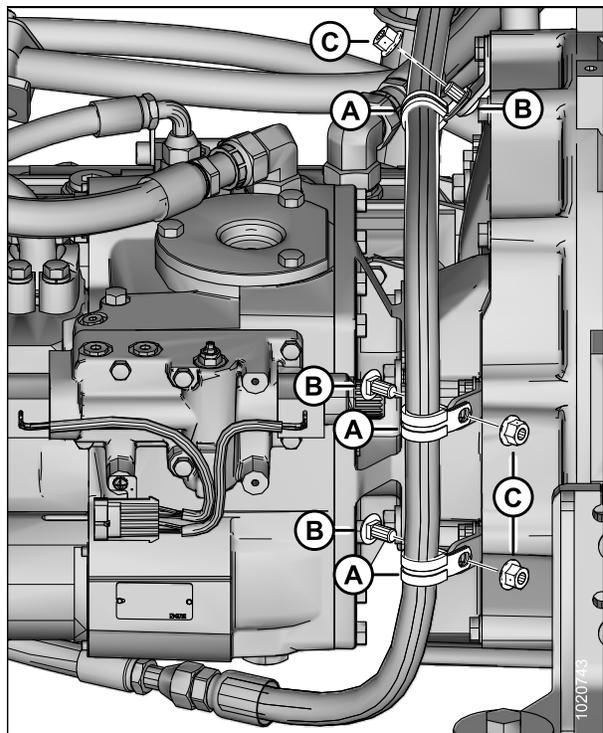


Figure 3.14: Engine Gearbox Cover

CASE DRAIN ROUTING UPDATE KIT INSTALLATION INSTRUCTIONS

17. Install cable tie (A) (MD #30753) around hoses beneath the header pump.

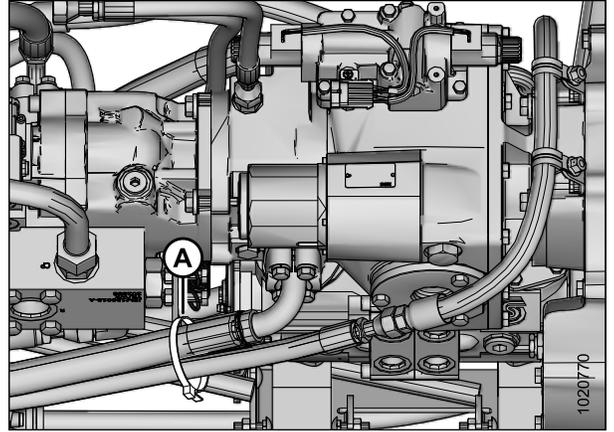


Figure 3.15: Beneath Header Pump

3.3 Checking and Adding Hydraulic Oil

DANGER

To avoid bodily injury or death from 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.

WARNING

Avoid high-pressure fluids. Escaping fluid can penetrate the skin causing serious injury.

1. Park windrower on level ground, and lower lift cylinders until they are fully retracted.
2. Shut down the engine, and remove the key.
3. Locate the sight glass (A) that is provided on the right side of the hydraulic oil tank. It indicates the oil level and any signs of contamination.

NOTE:

The sight glass is viewable with the hood open or closed. No oil in the sight glass indicates that the oil level is below the add mark on the dipstick.

4. Ensure the hydraulic oil level is between the low and full indicator marks.
5. Add oil if necessary. For specifications, refer to the windrower's operator manual or technical manual.

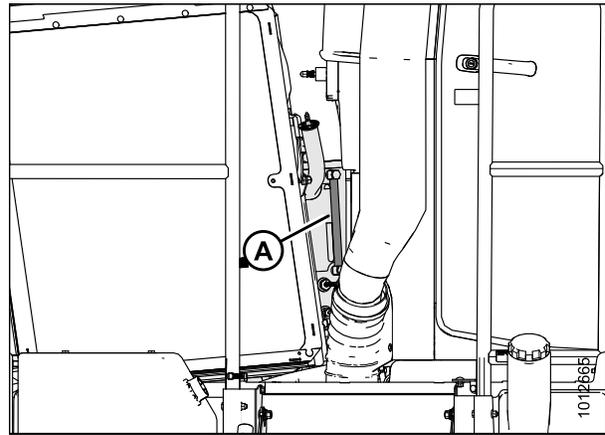


Figure 3.16: Hydraulic Oil Sight Glass

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