

M155 and M155E4 Self-Propelled Windrower

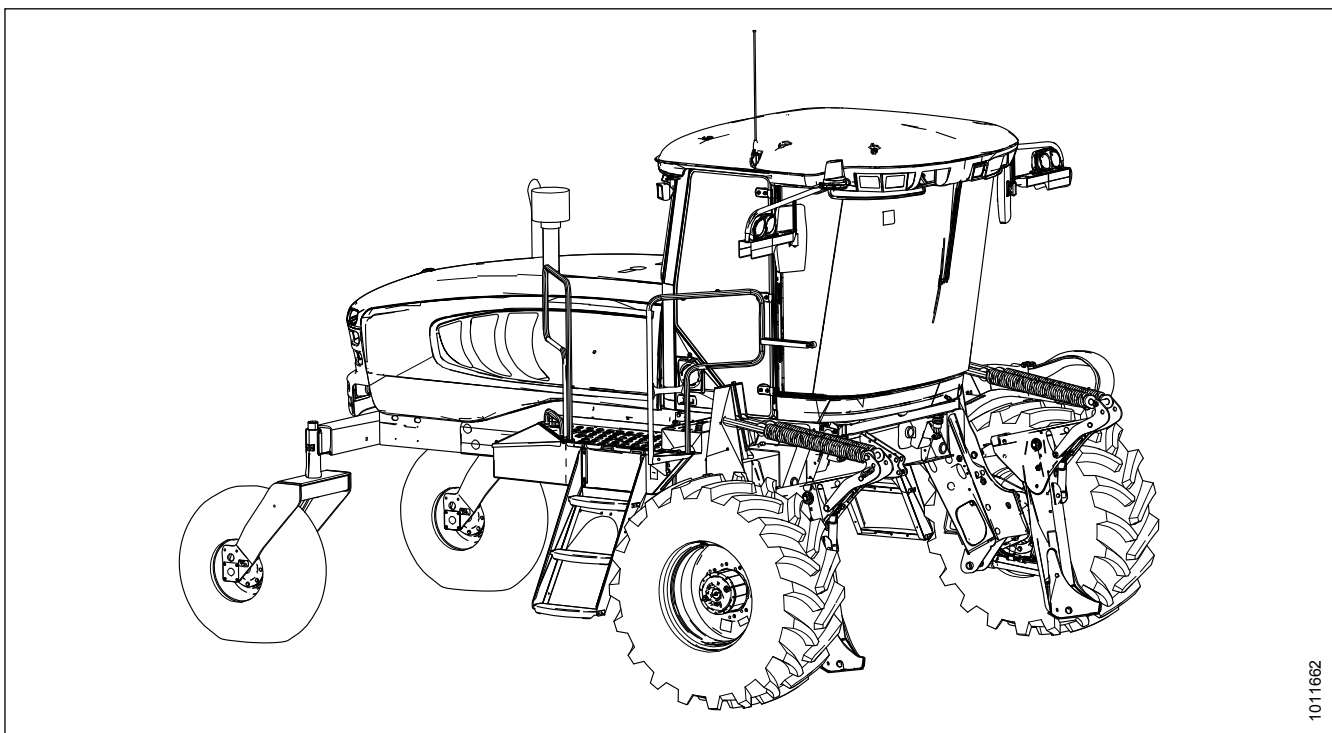
**Bell Housing Cover Kit (MD #167733)
Installation Instructions**

147876 Revision B
Original Instruction

M155 and M155E4 Self-Propelled Windrower



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Introduction

The Bell Housing Cover kit (MD #167733) is used to replace the bell housing cover and hex head pipe plug on an M155 or M155E4 Self-Propelled Windrower engine gearbox.

This document explains how to install the kit. A list of parts included in the kit is provided in Chapter [2 Parts List](#), [page 5](#).

Installation Time

Installation of this kit will take approximately 8–12 hours.

Conventions

The following conventions are used in this document:

- Right and left 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.

List of Revisions – 147876 Rev. B

At MacDon, we're continuously making improvements, and occasionally these improvements affect product documentation. The following list provides an account of major changes made since the last revision (147876 Rev. A).

Summary of Change	Location
Corrected torque spec in step 8, from 43 Nm (32 lbf·ft) to 91 Nm (67 lbf·ft).	3.7 Repairing Engine Gearbox, page 16

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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 loud noises.

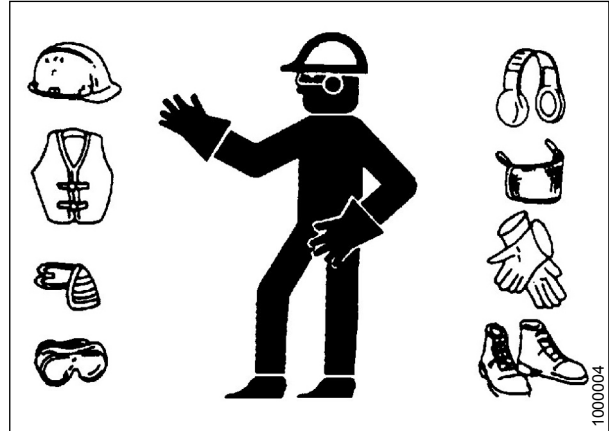


Figure 1.1: Safety Equipment



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.

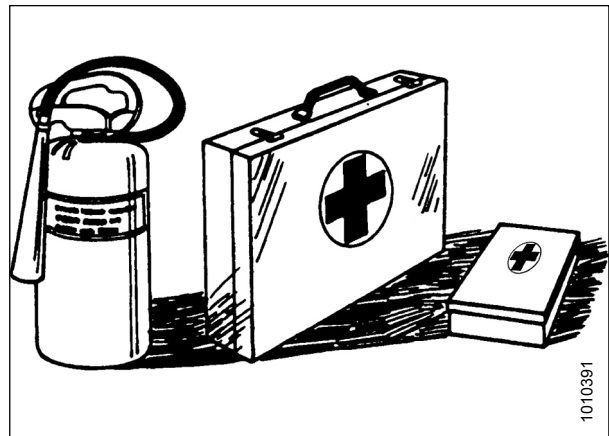


Figure 1.3: Safety Equipment

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.

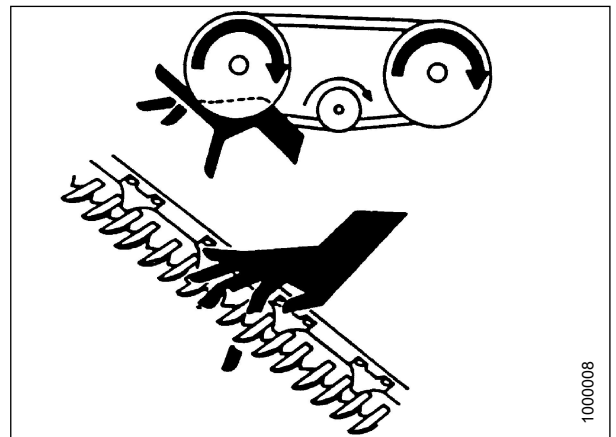


Figure 1.5: Safety around Equipment

- 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.

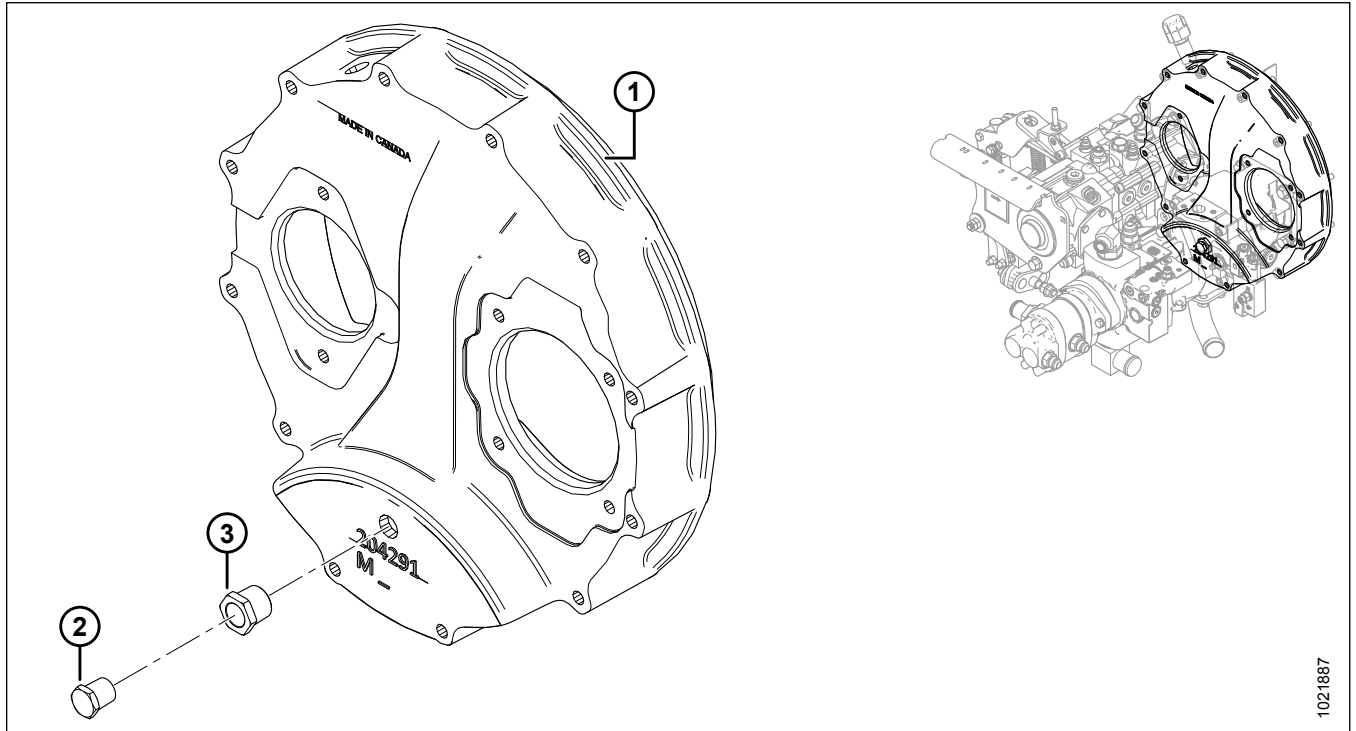


Figure 1.6: Safety around Equipment

2 Parts List

The following parts are included in this kit.

Figure 2.1: Bell Housing Cover Kit Parts



Ref	Part Number	Description	Quantity
1	NSS	COVER – MACHINED (SAE 3) ¹	1
2	136558	PLUG – HEX HEAD PIPE	1
3	5745	FITTING – REDUCER BUSHING	1

¹ Not serviced separately.

3 Installation Instructions

To install the Bell Housing Cover kit (MD #167733), follow these procedures in order.

NOTE:

Unless otherwise stated, retain all removed parts for reinstallation.

3.1 Removing Gear Pump

To remove the gear pump, follow these steps:

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.

1. Shut down the engine and remove the key from ignition.
2. Open the hood. Refer to the windrower operator's manual or technical manual for procedure.
3. Drain the hydraulic tank. Refer to the windrower operator's manual or technical manual for procedure.
4. Locate the gear pump (A), and wash it off before removing it.

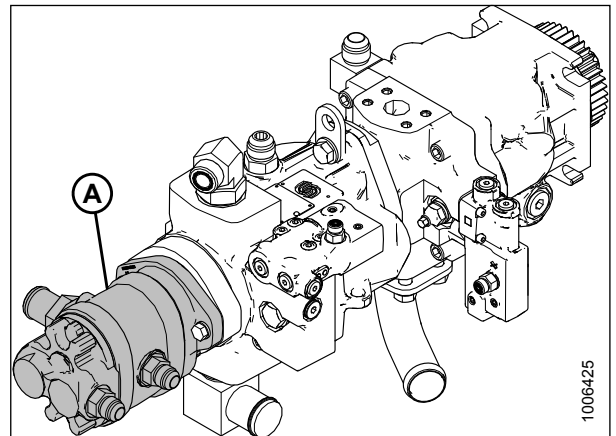


Figure 3.1: Gear Pump Assembly

5. Disconnect the three hydraulic lines (B), (C), and (D) that connect to the lift / supercharge pump (A). Cap hoses and plug ports once disconnections are made.

NOTE:

Caps and plugs are NOT included in this kit. Order these parts separately.

6. Remove bolts (E) that secure the gear pump to the reel/conveyor pump.
7. Remove the gear pump (A).

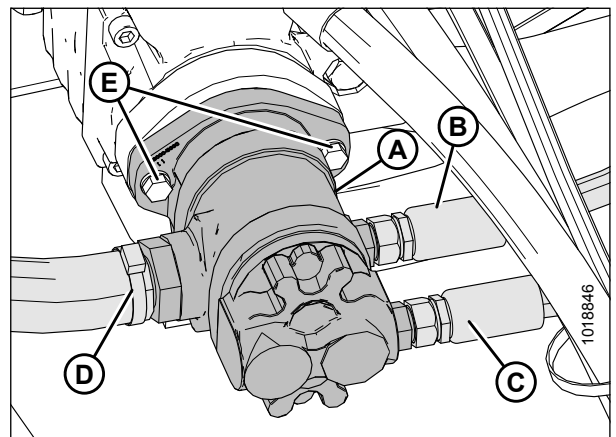


Figure 3.2: Gear Pump Assembly

- A - Gear Pump
- B - Connects to Return Manifold
- C - Connects to P1 on Multifunction Control Block
- D - Connects to Hydraulic Reservoir
- E - Bolts

INSTALLATION INSTRUCTIONS

3.2 Removing Reel/Conveyor Pump

To remove the reel/conveyor pump, follow these steps:

1. Disconnect the four hydraulic lines (B), (C), (D), and (E) that connect to the reel/conveyor pump. Cap hoses and plug ports once disconnections are made.

NOTE:

Caps and plugs are NOT included in this kit. Order these parts separately.

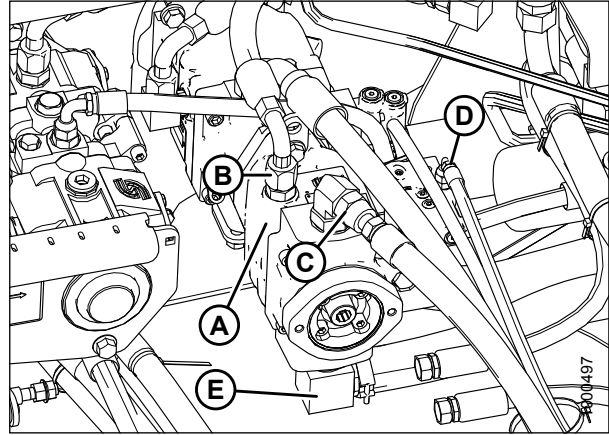


Figure 3.3: Reel/Conveyor Pump Hydraulics

- A - Reel/Conveyor Pump
- B - Connects to Hydraulic Reservoir
- C - To Drive Manifold Port P3
- D - To Drive Manifold Port LS3
- E - Connects to Return Manifold

2. Remove the two bolts (B) that secure the reel/conveyor pump (A) to the knife drive pump.
3. Remove the reel/conveyor pump (A).

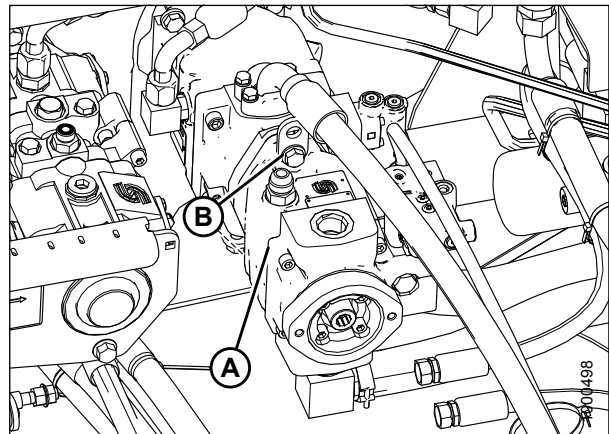


Figure 3.4: Reel/Conveyor Pump

INSTALLATION INSTRUCTIONS

3.3 Removing Knife Drive Pump

To remove the knife drive pump, follow these steps:

1. Disconnect the four hydraulic hoses (B), (C), (D), and (E) that connect to the knife drive pump (A).

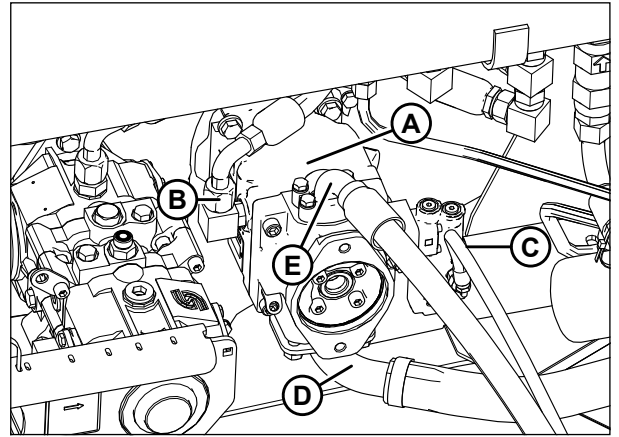


Figure 3.5: Knife Drive Pump Hydraulics

A - Knife Drive Pump
B - To Hydraulic Tank
C - To Drive Manifold Port LSI
D - To Return Manifold
E - To Drive Manifold Port P1

2. Support the knife drive pump. Then remove four bolts (B).
3. Remove the knife drive pump (A).

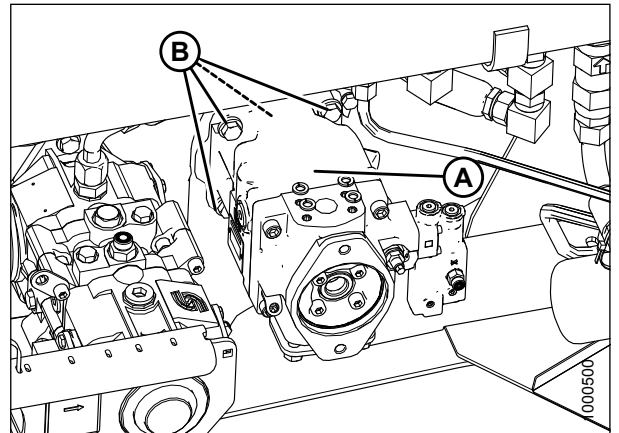


Figure 3.6: Knife Drive Pump

3.4 Removing Traction Drive Pump

To remove the traction drive pump, follow these steps:

⚠ 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.

1. Locate the traction drive pump (A), and wash it off before removal.

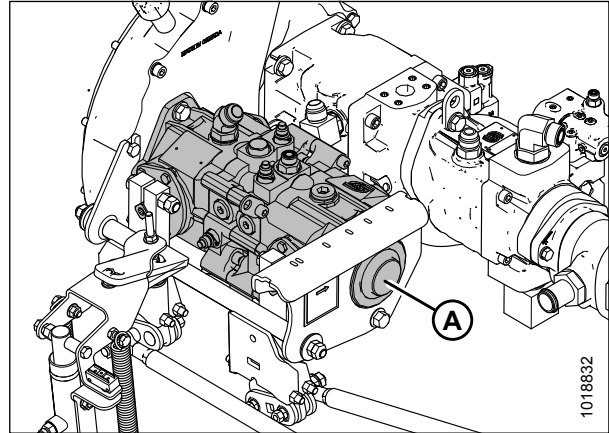


Figure 3.7: Traction Drive Pump

2. Remove the four nuts (A) that hold the right and left steering rods (B) to the pintle arms.

NOTE:

Do **NOT** remove pintle arms from traction drive pump.

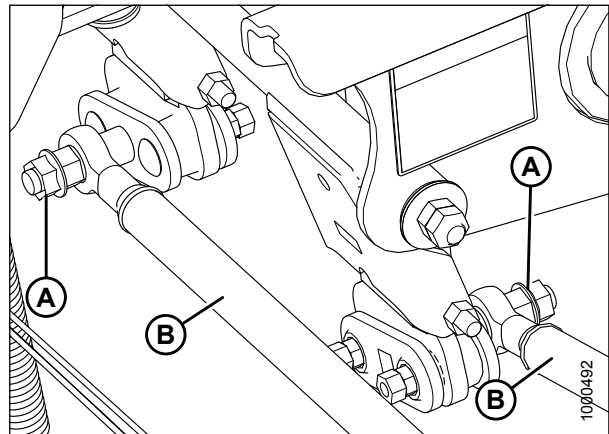


Figure 3.8: Traction Drive Assembly

INSTALLATION INSTRUCTIONS

3. Remove the upper end of both springs (A).
4. Cut the cable ties on the interlock bracket (B).
5. Remove bolts (C) that hold the interlock bracket (B) to the pump.
6. Remove nuts (D) and washer (E) that hold the interlock bracket to the interlock pivot (F).
7. Remove the interlock bracket (B).

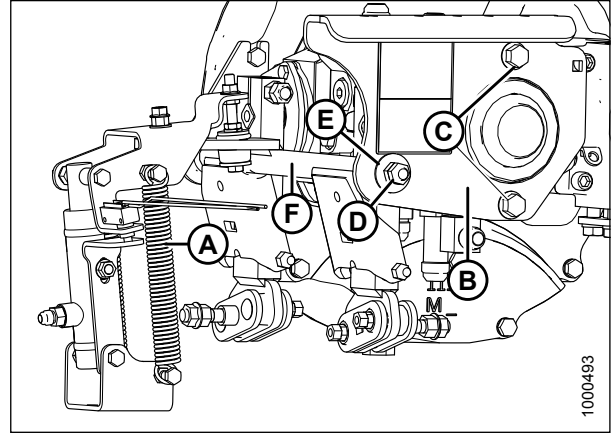


Figure 3.9: Traction Drive Assembly

8. Loosen the two bolts (A) from engine end of the interlock hanger. Rotate the interlock pivot assembly (B) out of the way.

NOTE:

Leave the interlock assembly attached to the cylinder. Tie it up, out of the way.

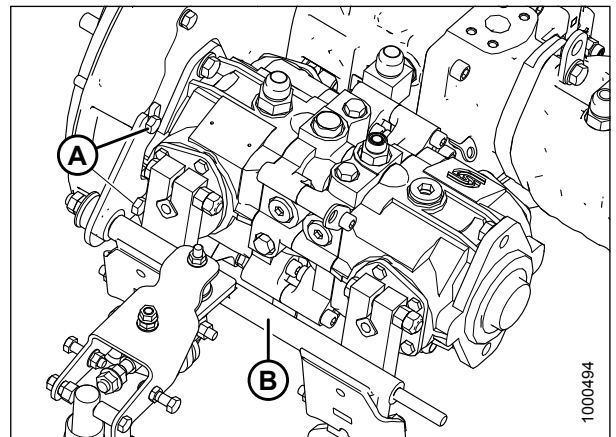


Figure 3.10: Traction Drive Assembly

9. Remove the hydraulic hoses attached to the pump. There are five hoses that attach to the bottom and two that attach to the top.

NOTE:

Make sure to cap, plug, and color code hydraulic lines and ports; this will aid in reassembly. Caps, plugs, and ties are NOT included in this kit. Order these parts separately.

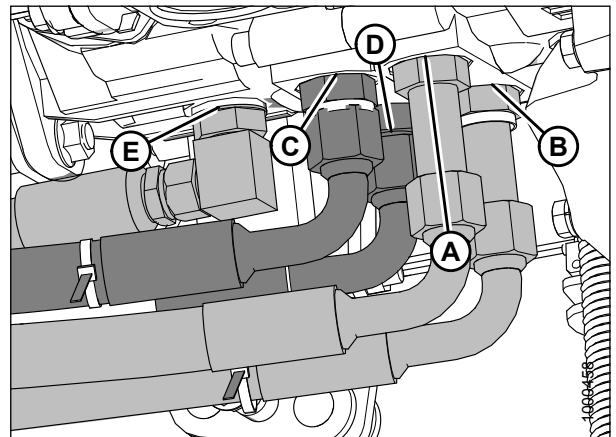


Figure 3.11: Connection at the Pump (View From Left Side Cab-Forward)

- A - Port A (Extended Adapter) Connects to Port B Right Wheel Motor
- B - Port B (Extended Adapter – Red Tie) Connects to Port A Right Wheel Motor
- C - Port C (Short Adapter – Yellow Tie) Connects to Port B Left Wheel Motor
- D - Port D (Short Adapter) Connects to Port A Left Wheel Motor
- E - Case Drain Port LL1 Connects to Tee then Port C Wheel Motor

INSTALLATION INSTRUCTIONS

10. On top of the pump, case drain port (A), closer to the front of the windrower, connects to the hydraulic reservoir. Port E, farther rearward on the pump connects to the supercharge valve port SC.

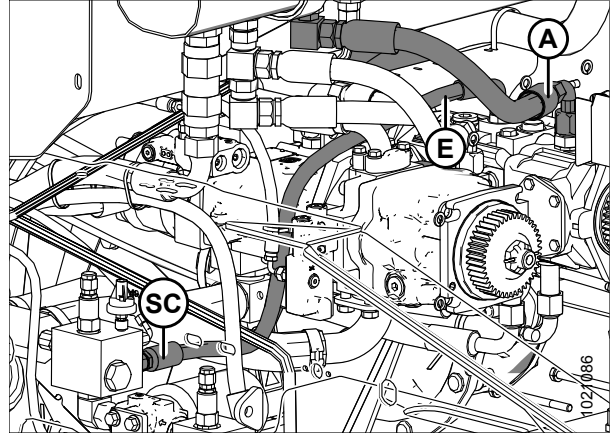


Figure 3.12: Traction Drive Assembly

11. Remove the bottom bolt (A) from the traction pump.
12. Support the pump and remove the top bolt (B) from the traction pump.

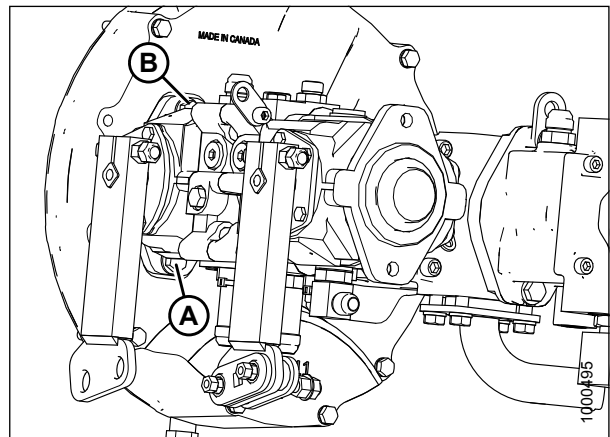


Figure 3.13: Traction Drive Assembly

13. Remove pump (A) and place it on a work bench.

NOTE:

Traction drive pump is heavy; be sure to support it correctly.

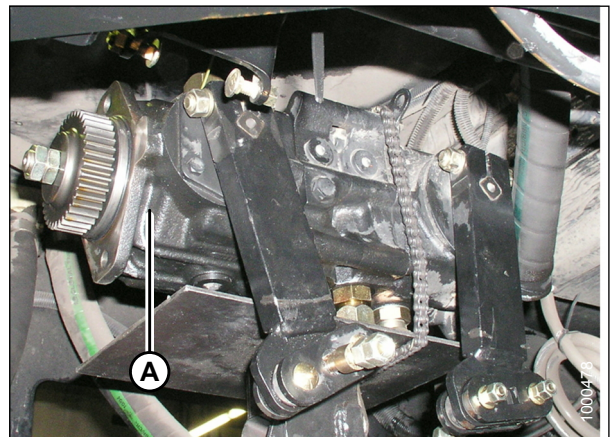


Figure 3.14: Traction Drive Assembly

INSTALLATION INSTRUCTIONS

3.5 Removing Engine Gearbox

To remove the engine gearbox, follow these steps:

1. Clean the engine gearbox before removing any components.
2. Find a suitable container to collect used oil. Remove the drain plug (A) on the bottom of the gearbox and drain the oil.
3. Once the oil is drained, clean off any debris that has accumulated on the drain plug, and then reinstall the plug.
4. Remove the breather tube (B) from the gearbox.
5. Remove the twelve bolts (C) that hold the machined cover to the engine.

NOTE:

Leave two bolts (C) in the gearbox to hold it loosely to the engine. This will assist you when you pry it off.

6. Install two 1/2 in. fully threaded rods into the pump mounting holes (A). Thread the rods till they touch the engine flywheel. Tighten both rods enough to push the machined cover off and break the silicone seal holding the gearbox to the engine.
7. Remove the last two bolts (B) securing gearbox to engine.

8. Remove the gearbox complete with the center gear (A).

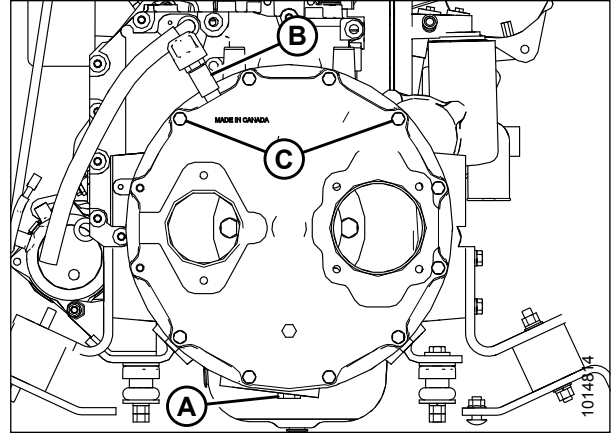


Figure 3.15: Engine Gearbox

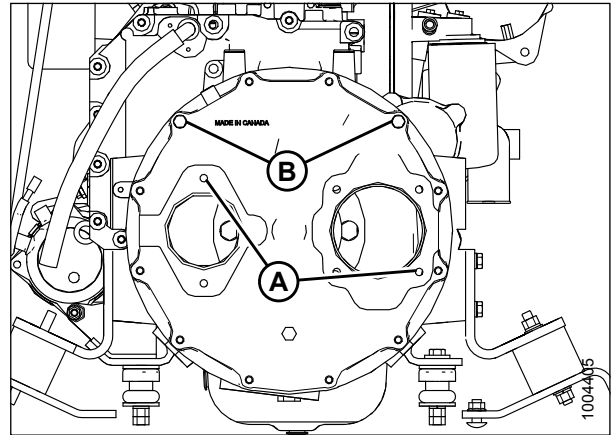


Figure 3.16: Engine Gearbox

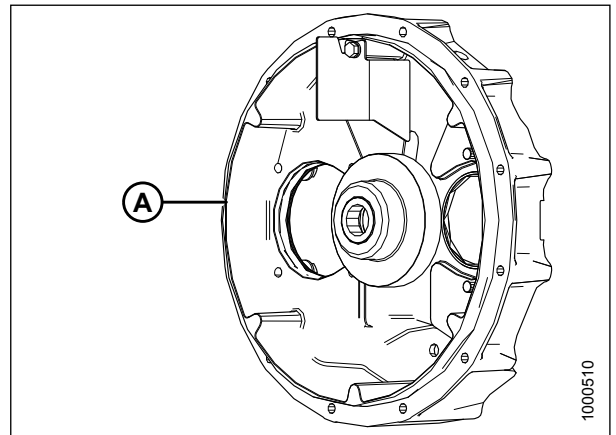


Figure 3.17: Gearbox with Center Gear

INSTALLATION INSTRUCTIONS

- Remove four bolts (A) securing the bell housing coupling (B) to the engine.

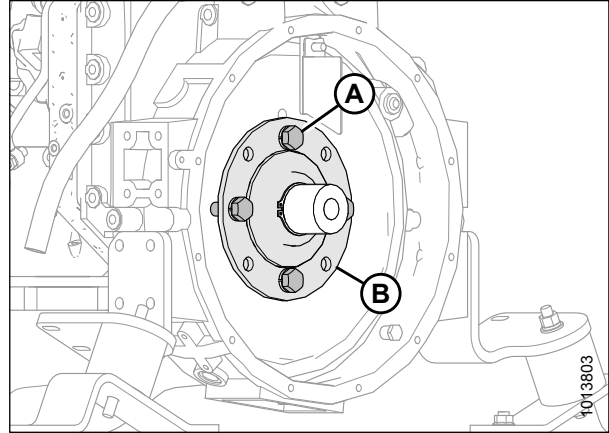


Figure 3.18: Spline Coupling

- Remove snap ring (A) that secures splined coupling (B) to bell housing coupling (C).
- Remove splined coupling (B).

NOTE:

Inspect splined coupling for wear. Replace if necessary.

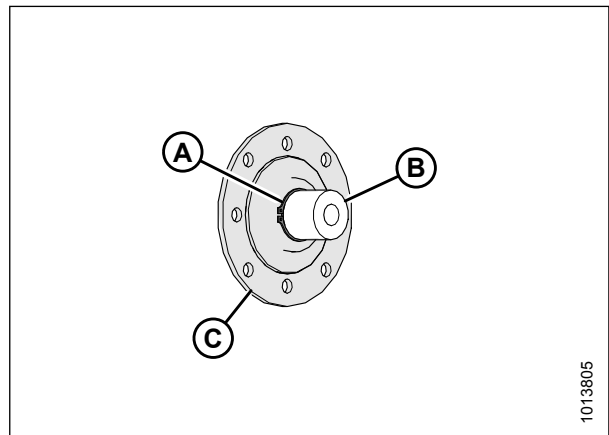


Figure 3.19: Spline Coupling

INSTALLATION INSTRUCTIONS

3.6 Disassembling Engine Gearbox

To disassemble the engine gearbox, follow these steps:

1. Remove the bolt (A) that secures the center gear assembly (B) to the machined cover (E).
2. If you need to repair or replace the oil deflector (C), remove bolt (D) and repair or replace the oil deflector (C).

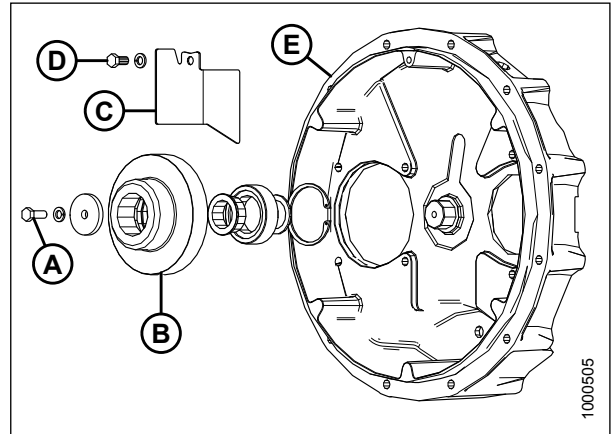


Figure 3.20: Gearbox Assembly

A - Bolt
B - Center Gear Assembly
C - Oil Deflector
D - Bolt
E - Machined Cover

3. If bearing replacement is required, remove the snap ring (C) and bearing (B) from the center gear assembly (A). Replace bearing (B).

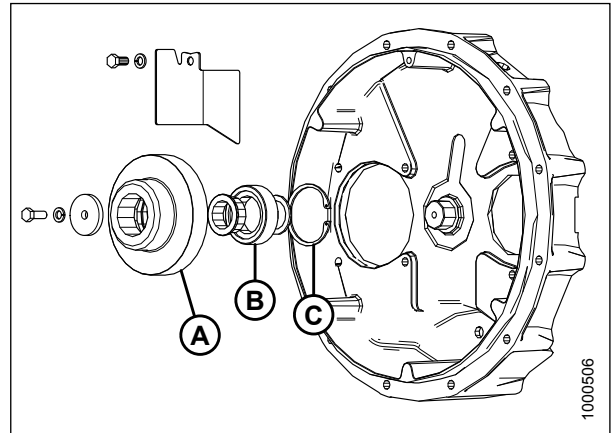


Figure 3.21: Gearbox Assembly

INSTALLATION INSTRUCTIONS

3.7 Repairing Engine Gearbox

To repair the engine gearbox, follow these steps:

1. Lubricate bearing (B) with 80W-140 gear oil, then install bearing into the center gear (A). Inner race should be on the engine side.
2. Secure it with snap ring (C).

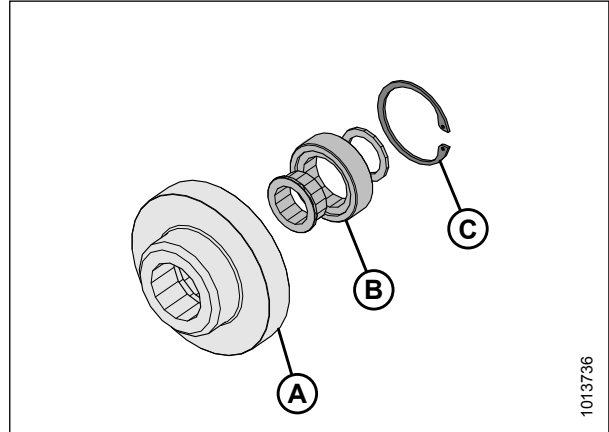


Figure 3.22: Gear and Bearing

3. Discard old hex head pipe plug and machined cover, which was previously disassembled in Step 1, page 15.
4. Install hex head pipe plug (A) (MD #136558) and reducer bushing fitting (B) (MD #5745) into new machined cover (C). All parts are included in this kit.

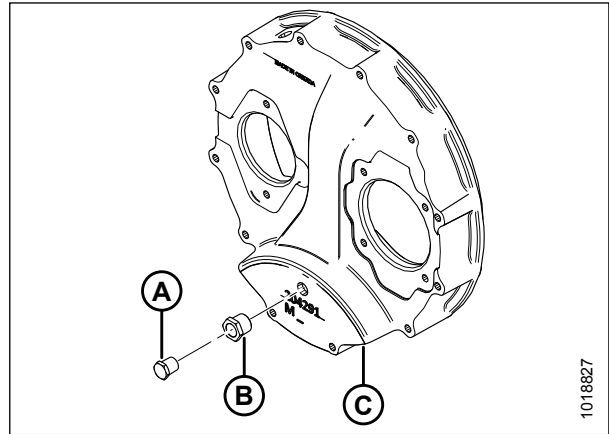


Figure 3.23: Plug, Fitting, and Cover

5. If removed, install the oil deflector (B) and secure it with bolt (A).

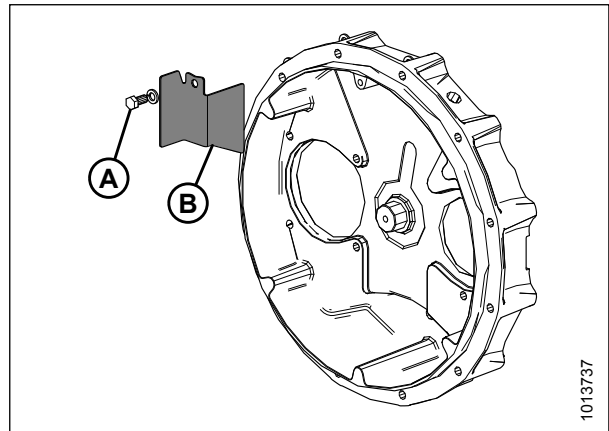


Figure 3.24: Deflector

INSTALLATION INSTRUCTIONS

6. Install the thrust washer (A) onto the stub shaft on the gearbox.

NOTE:

The printing on the thrust washer should face the gearbox.

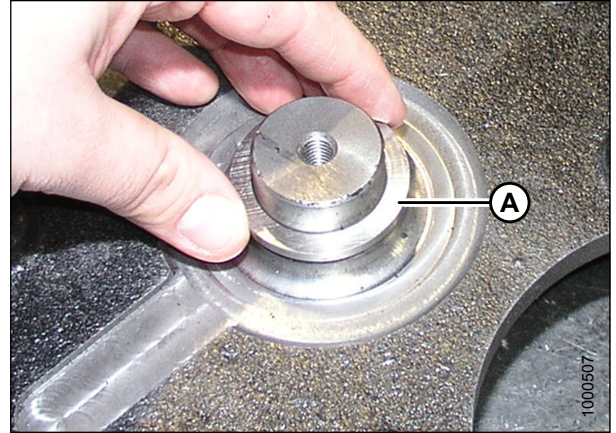


Figure 3.25: Thrust Washer

7. Install the center gear with bearing (A) onto the stub shaft on the gearbox.
8. Secure the center gear assembly with bolt (B). Use Loctite® 262 on the threads and torque to 91 Nm (67 lbf·ft).

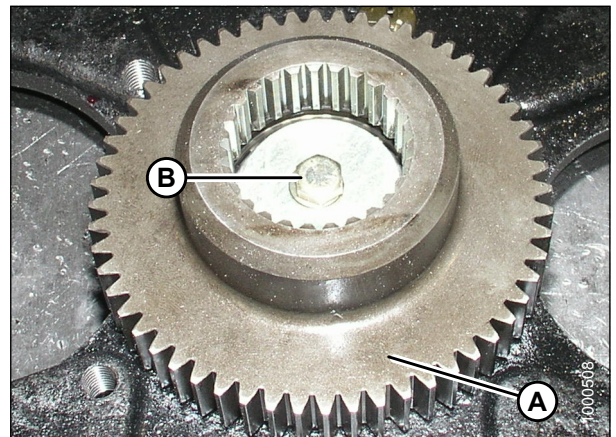


Figure 3.26: Center Gear with Bearing

INSTALLATION INSTRUCTIONS

3.8 Installing Engine Gearbox

To install the engine gearbox, retrieve parts removed in [3.5 Removing Engine Gearbox, page 13](#) and follow these steps:

1. Install snap ring (A) that secures splined coupling (B) to bell housing coupling (C).

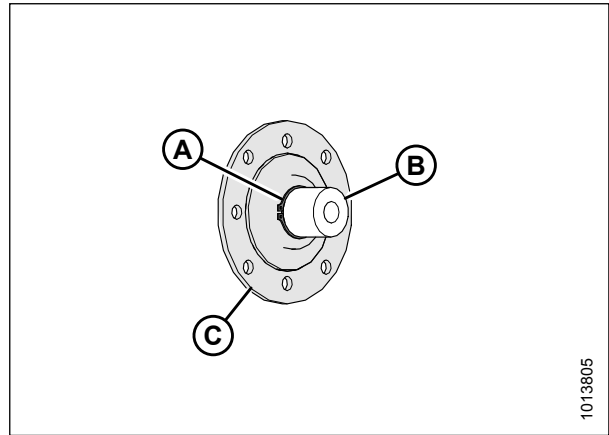


Figure 3.27: Spline Coupling

2. Make sure the mating surface on the engine is free of silicone from the previous gearbox. Scrape any excess silicone off. The mating surface should be as clean as possible.
3. Ensure the spline coupling (B) is installed on the engine. If coupling was removed, apply Loctite® 262 to the bolt threads (A) and torque bolts to 225 Nm (166 lbf-ft).

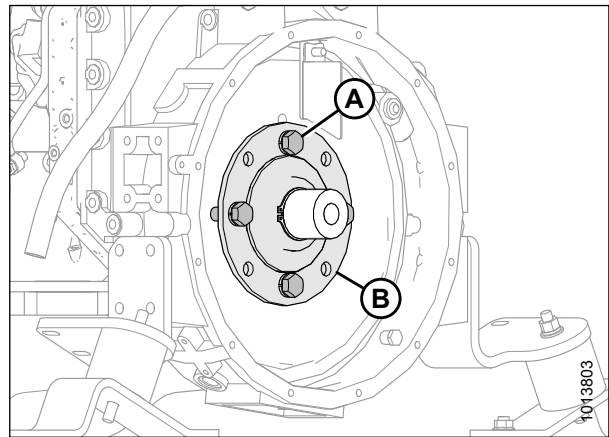


Figure 3.28: Spline Coupling

4. Install two pieces of M10 x 127 mm threaded rod into two of the machined gearbox mounting holes (A). This will support the gearbox while installing it.

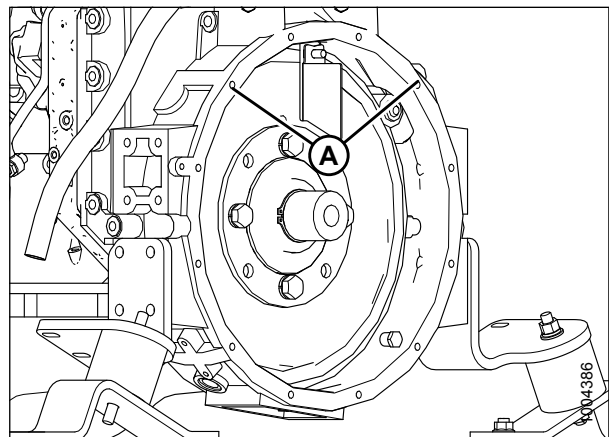


Figure 3.29: Gearbox Mounting Holes

INSTALLATION INSTRUCTIONS

- Place a 5–7 mm (3/16–1/4 in.) diameter bead of silicone (A) onto the gearbox around the inside edge.

NOTE:

Do not use excessive silicone as it may get into the threaded holes on the gearbox and may cause cracks.

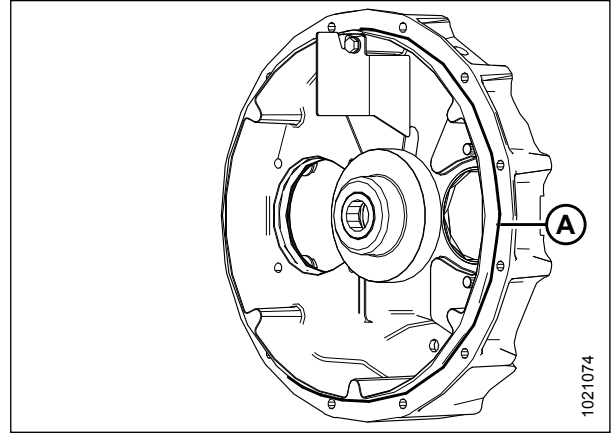


Figure 3.30: Engine Gearbox

- After applying the silicone, install all the bolts and washers (A) and (B) around the perimeter of the housing. Wipe off any silicone that may get on the bolts. Torque bolts (A) and (B) to 41 Nm (30 lbf·ft).

NOTE:

The two bolts with the asterisk (*) do not require washers.

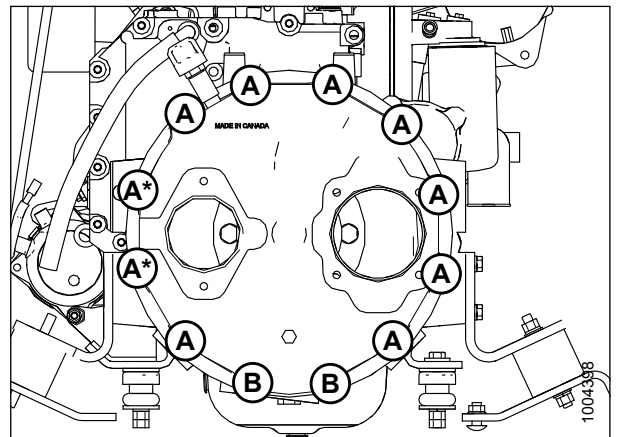


Figure 3.31: Gearbox Hardware

A - M10 X 1.5 X 90

B - M10 X 1.5 X 130

- Add lubricant to gearbox.

IMPORTANT:

Refer to the Reference Section in the windrower technical manual for information regarding lubricants, fluids, and system capacities.

- Install breather fitting (A) with pipe sealant on threads.
- Reach into the gearbox through one of the pump holes and check that the spline coupling has some movement.

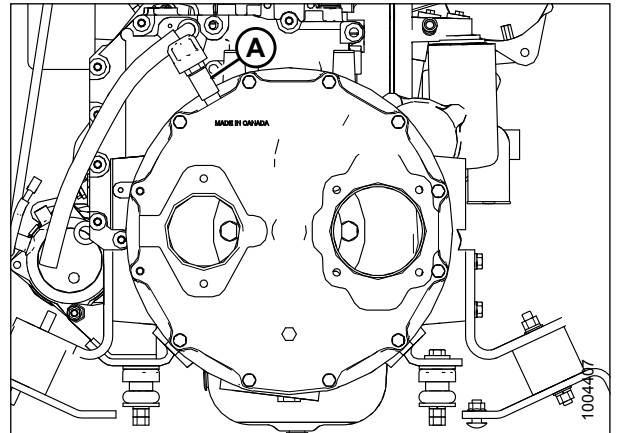


Figure 3.32: Gearbox Breather Fitting

INSTALLATION INSTRUCTIONS

3.9 Installing Knife Drive Pump

To install the knife drive pump, retrieve parts removed in [3.3 Removing Knife Drive Pump, page 9](#) and follow these steps:

1. Make sure the mounting surfaces on the pump and engine gearbox housing are clean.
2. Install new O-ring (MD #111546) (A) (\varnothing 4.88 in. ID x 0.118 mm, Nitrile 70) on the pump before reassembly. O-ring (MD #111546) is NOT included in this kit. Order O-ring separately.

NOTE:

If you removed the gear (B) from the end of the shaft, check that the key is seated in the keyway on the input shaft on the knife drive pump. Torque castellated nut (C) to 190 Nm (140 lbf·ft). Continue tightening to next slot so hole in shaft and nut align. Install cotter pin (D).

3. Install the knife drive pump (A).
4. Secure it with four 1-1/2 in. long hex head bolts (B) and hardened washers. Use Loctite® 262 on threads and torque bolts to 102 Nm (75 lbf·ft).

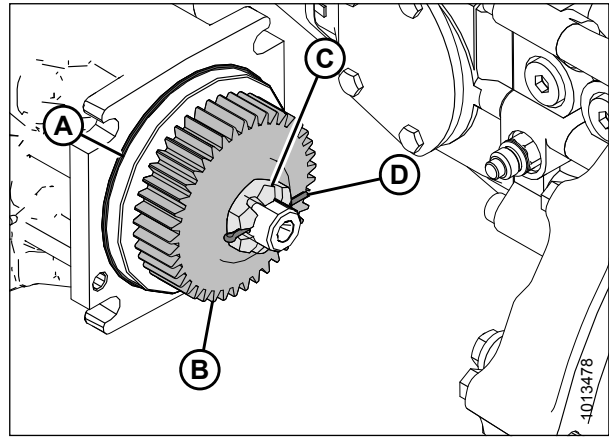


Figure 3.33: Gear

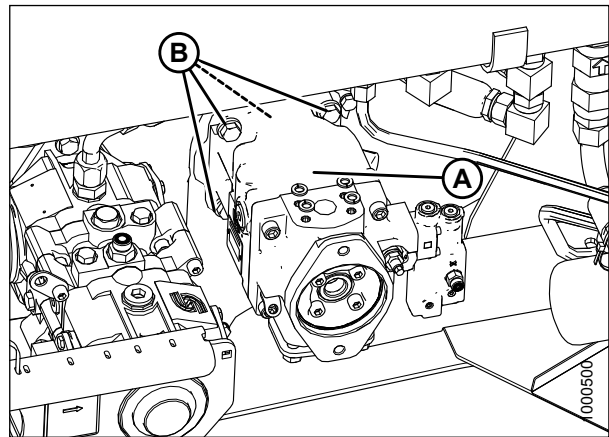


Figure 3.34: Knife Drive Pump

INSTALLATION INSTRUCTIONS

5. Remove cap and plugs. Reconnect the four hydraulic hoses (B), (C), (D), and (E) that connect to the knife drive pump (A).

NOTE:

For hydraulic hose (D) torque bolts to 50–55 Nm (37–41 lbf-ft).

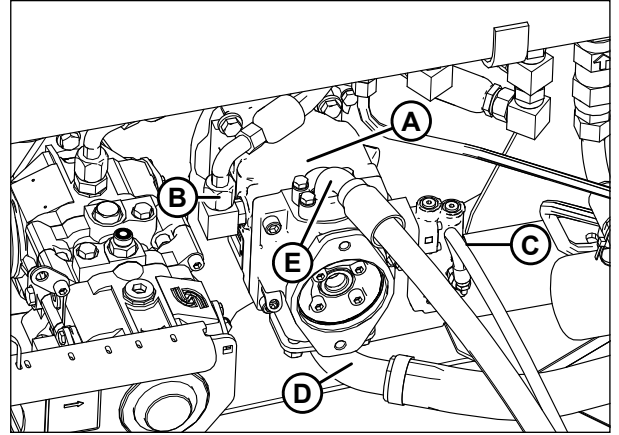


Figure 3.35: Knife Drive Pump Hydraulics

- A - Knife Drive Pump
- B - Connect to Hydraulic Tank
- C - Connects to Drive Manifold Port LSI
- D - Connects to Return Manifold
- E - Connects to Drive Manifold Port P1

3.10 Installing Reel/Conveyor Pump

To install the reel/conveyor pump, retrieve parts removed in [3.2 Removing Reel/Conveyor Pump, page 8](#) and follow these steps:

1. Install the reel/conveyor pump (A) and secure it with bolts (B).

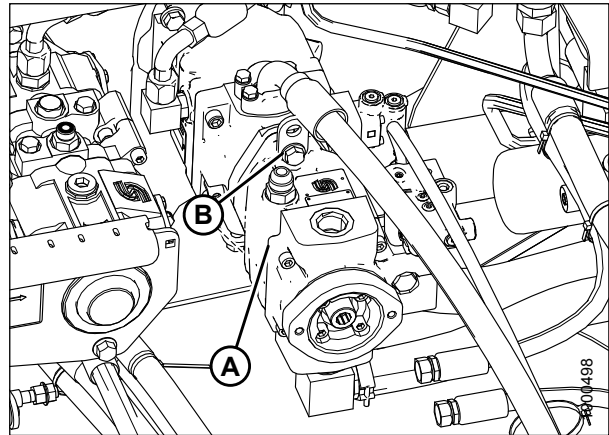


Figure 3.36: Reel/Conveyor Pump

2. Remove caps and plugs and reconnect the following four hydraulic lines to the reel/conveyor pump (A):
 - Hose to hydraulic reservoir (B)
 - Hose to drive manifold port (P)
 - Hose to drive manifold port (LS3)
 - Hose to return manifold (C)

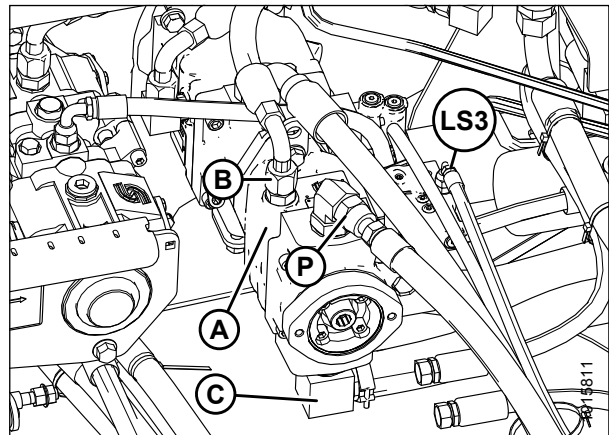


Figure 3.37: Reel/Conveyor Pump Hydraulics

INSTALLATION INSTRUCTIONS

3.11 Installing Gear Pump

To install the gear pump, retrieve parts removed in [3.1 Removing Gear Pump, page 7](#) and follow these steps:

1. Clean the mating surfaces of the header drive pump and the triple gear pump with cleaning solution or brake cleaner. Allow the mating surfaces to dry completely. Make certain there is no oil residue or dirt of any kind on the mating surfaces.
2. Install gear pump (A).

NOTE:

Ensure O-ring (MD #49802) is lubricated and installed on the pilot diameter of the gear pump before installing it onto the gearbox. O-ring is NOT included in this kit. Order O-ring separately if required.

3. Install bolts (E) that secure the gear pump to the reel/ conveyor pump.
4. Remove any caps, and reconnect the three hydraulic lines (B), (C), and (D) to gear pump (A).
5. Install hydraulic oil. Refer to the windrower technical manual for procedure.

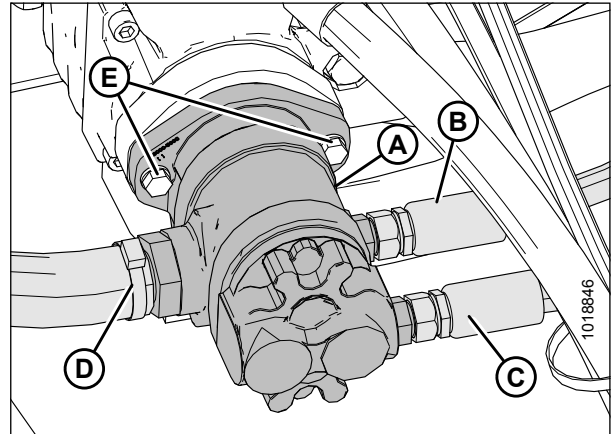


Figure 3.38: Gear Pump Assembly

- A - Gear Pump
- B - To Return Manifold
- C - To P1 on Multifunction Control Block
- D - To Hydraulic Reservoir
- E - Bolts

3.12 Installing Traction Drive Pump

To install the traction drive pump, retrieve parts removed in [3.4 Removing Traction Drive Pump, page 10](#) and follow these steps:

1. Make sure the mounting surfaces on the pump and engine gearbox housing are clean.
2. Install new O-ring (A) (MD #30045) (\varnothing 101.27 mm ID x 2.62 mm, Nitrile 70) before reassembly. O-ring (MD #30045) is NOT included in this kit. Order O-ring separately.

NOTE:

If you removed gear (B) from the end of the shaft, check that the key is seated in the keyway on the input shaft on the traction drive pump. You must retighten the nuts (C). Torque inner nut to 149–190 Nm (110–140 lbf·ft) to seat the gear. Hold the inner nut and tighten the outer nut against the inner nut. Torque outer nut to 149–190 Nm (110–140 lbf·ft).

3. Support the traction drive pump (A) and raise it into position, then insert it into the gearbox.

NOTE:

Traction drive pump is heavy. Be sure to support it adequately.

4. Use Loctite® 262 on both bolts and install the two bolts (A) that hold the pump to the gearbox. Torque bolts to 102 Nm (75 lbf·ft).

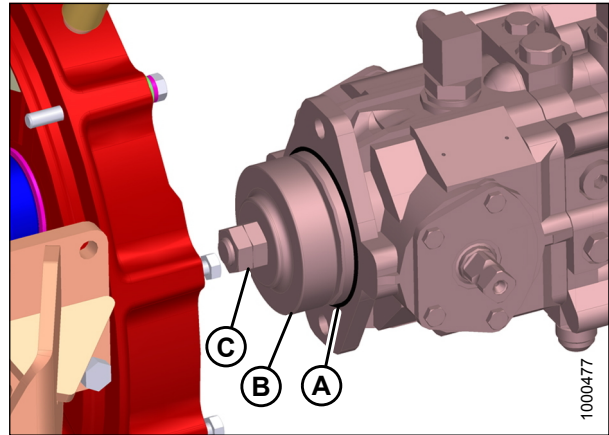


Figure 3.39: Traction Drive Assembly

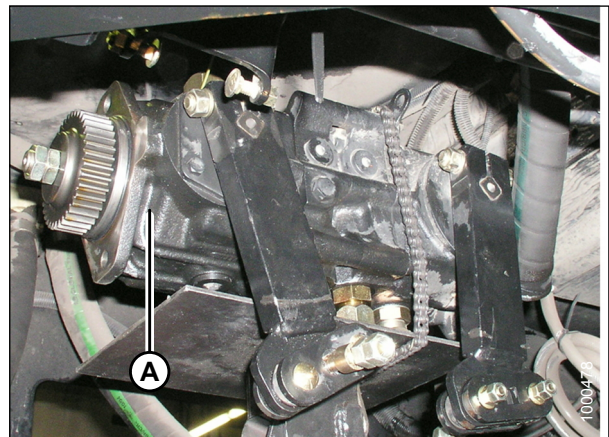


Figure 3.40: Traction Drive Assembly

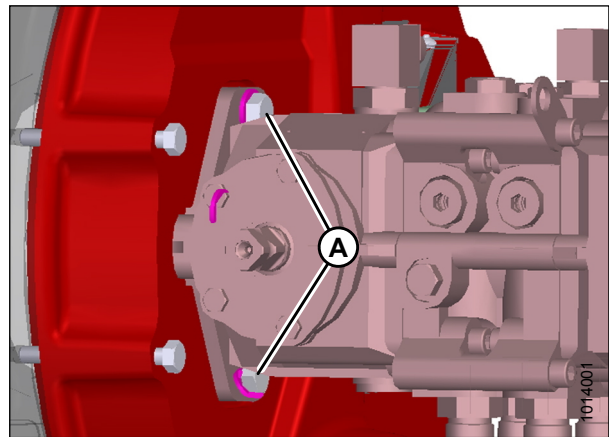


Figure 3.41: Traction Drive Assembly

INSTALLATION INSTRUCTIONS

- Attach five hoses to the bottom of the pump.

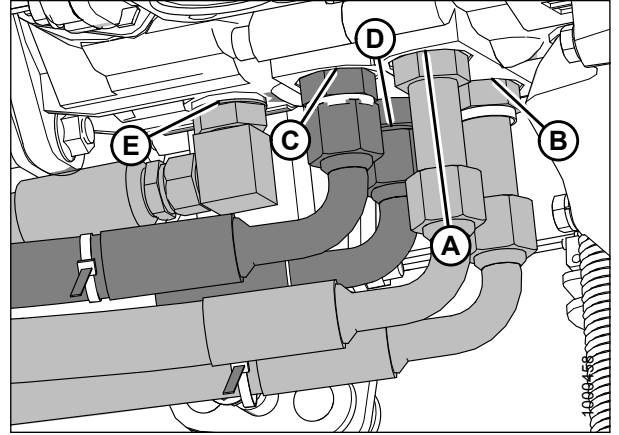


Figure 3.42: Connection at the Pump (View From Left Side Cab-Forward)

- A - Port A (Extended Adapter) Connects to Port B Right Wheel Motor
- B - Port B (Extended Adapter – Red Tie) Connects to Port A Right Wheel Motor
- C - Port C (Short Adapter – Yellow Tie) Connects to Port B Left Wheel Motor
- D - Port D (Short Adapter) Connects to Port A Left Wheel Motor
- E - Case Drain Port LL1 Connects to Tee then Port C Wheel Motor

- Attach two hoses to the top of the pump. Case drain port (A), closer to the front of the windrower, connects to the hydraulic tank. Port E (B), in the middle of the pump, connects to the supercharge valve port SC.

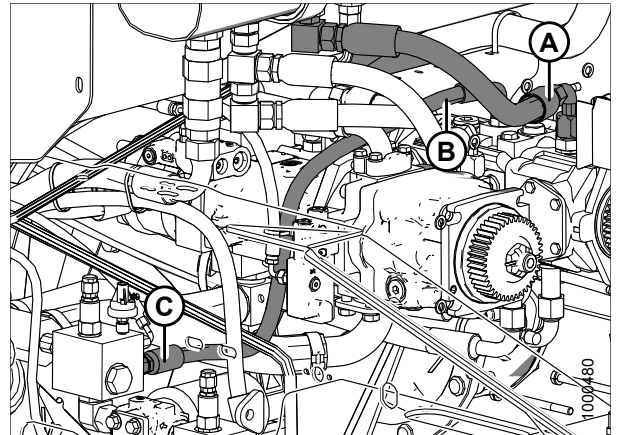


Figure 3.43: Traction Drive Assembly

- On the pintle arms, check the condition of the rubber insulator (A) and replace if necessary. To install the rubber insulator, follow these steps:
 - Lubricate the insulator and plate with water.
 - Place the insulator in the plate hole and twist by hand as far as it will go without distorting.
 - Insert a 3/8 x 2 in. hex bolt into the insulator, and tap the bolt head to fully insert the insulator. There should be no gap between the under surface of the insulator and the plate.

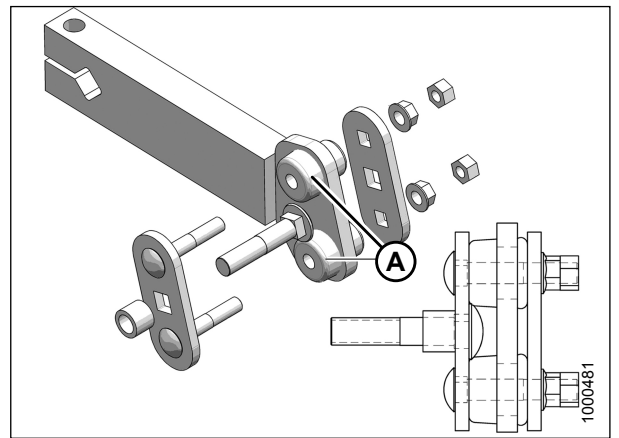


Figure 3.44: Pintle Arm

INSTALLATION INSTRUCTIONS

- Remove 3/8 x 2 in. hex bolt and assemble parts. Torque nuts (A) to 20–24 Nm (15–18 lbf-ft).

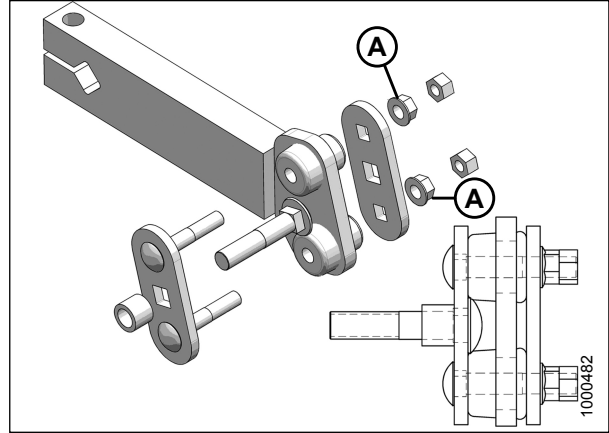


Figure 3.45: Pintle Arm

- Install both pintle arms (A) onto the pump. Ensure the arms are installed with the correct orientation. The bottom of the pintle arm should be angled upward towards the cab. If the bottom is angled the wrong way, steering will be affected.

NOTE:

The shaft must be fully engaged.

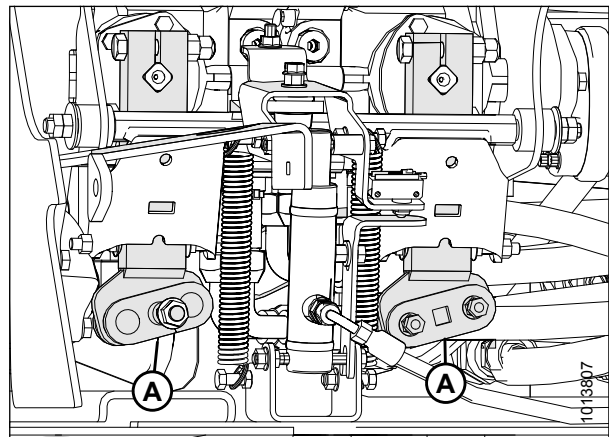


Figure 3.46: Traction Drive Assembly (View From Right Side)

- Set pintle arm (A) and (B) to dimension (C). (C= 2.5 mm [0.1 in.] away from the bolt head directly behind it.)
- Install 1/2 x 3 in. bolt (D) and install nut (E) onto pintle arm (A) and (B).
- Torque nut (E) to 108 Nm (80 lbf-ft). Then install the jam nut (F) and torque to 108 Nm (80 lbf-ft).

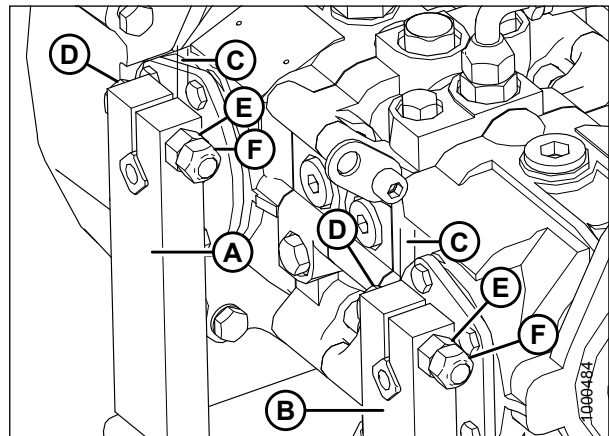


Figure 3.47: Traction Drive Assembly

INSTALLATION INSTRUCTIONS

13. Install the interlock hanger (A) and bolts (B). Bolts (B) do not require washers; only use Loctite® 243 and torque the bolts to 41 Nm (30 lbf-ft).

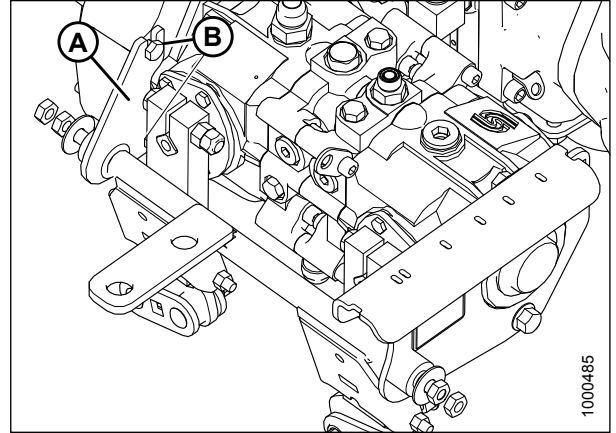


Figure 3.48: Traction Drive Assembly

14. Install the neutral interlock (A) and neutral interlock bracket.
15. Secure the neutral interlock with washer (C) and nut (D). Torque interlock nut (D) to 61 Nm (45 lbf-ft).
16. Install jam nut (E) and torque to 61 Nm (45 lbf-ft).

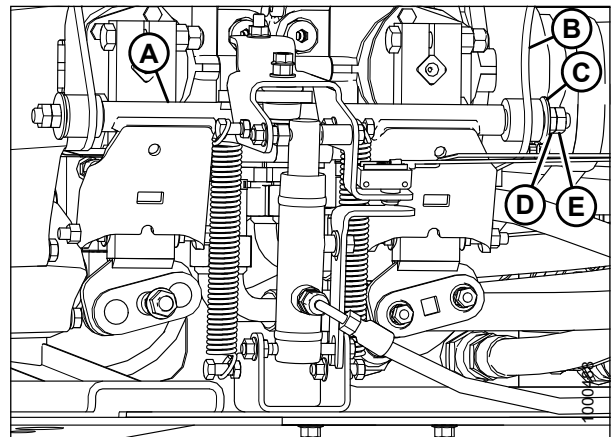


Figure 3.49: Traction Drive Assembly

17. Install the two bolts (A) that secure the interlock bracket to the traction drive pump.

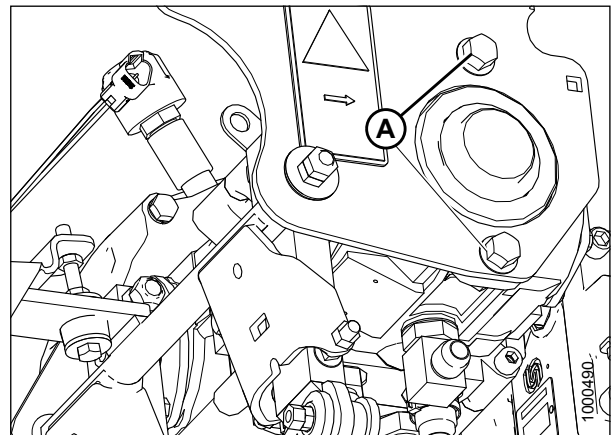


Figure 3.50: Traction Drive Assembly

INSTALLATION INSTRUCTIONS

18. Install both springs (A) onto neutral interlock.

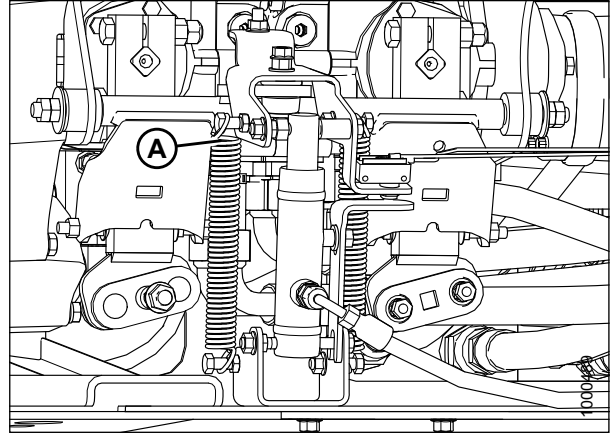


Figure 3.51: Traction Drive Assembly

19. Set interlock pivot (B) to dimension C (C = 2 mm [0.08 in.] away from the shank of pintle arm [A]). If you need to adjust the interlock pivot to achieve the correct gap, adjust nuts (D) to increase or decrease the gap.

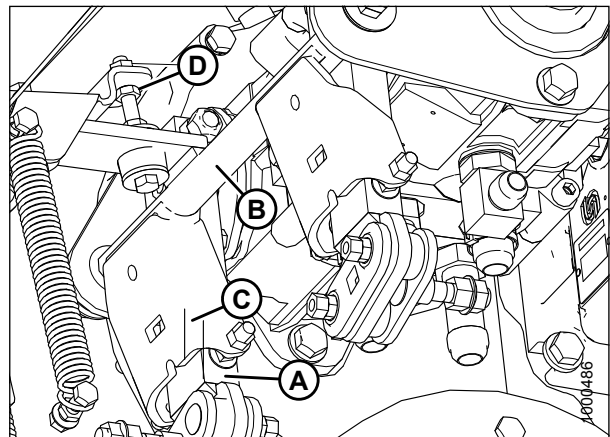


Figure 3.52: Traction Drive Assembly

20. Attach the steering link arms to the pintle arms (A) and (B).
21. Fill tank with hydraulic oil. Refer to the windrower technical manual for procedure.

IMPORTANT:

Refer to the Reference Section in the windrower technical manual for information regarding lubricants, fluids, and system capacities.

22. Start traction drive pump. Refer to [3.12.1 Starting Traction Drive Pump after Replacement or Repair](#), page 29.
23. Close the hood. Refer to the windrower technical manual for procedure.

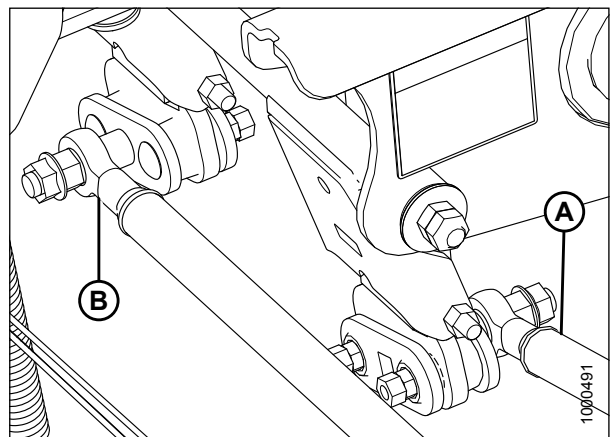


Figure 3.53: Traction Drive Assembly

INSTALLATION INSTRUCTIONS

3.12.1 Starting Traction Drive Pump after Replacement or Repair

The following start-up procedure should always be followed when starting up a new installation or when restarting an installation in which either the pump or motor have been removed from the system.

1. Fill oil tank with hydraulic oil. Refer to the windrower technical manual for procedure.
2. Leave the hydraulic oil tank fill cap loose while bleeding the pump.
3. On the top of the traction drive pump, loosen plug (A) to allow air to bleed out of the pump housing and fill the housing with oil. Once the oil starts to run out from the housing, reinstall and tighten plug.

IMPORTANT:

This procedure must be done prior to the engine cranking. Pumps are damaged very quickly without oil in the housings.

4. Once the pump cases are full, disengage the wheel drives. Refer to the windrower technical manual for procedure.
5. Open the right platform (cab-forward) rearward. Refer to the windrower technical manual for procedure. Remove fuse F7 from the fuse block. Crank engine over with starter for approximately 15 seconds.
6. Reinstall the fuse and start the engine, running it at 1100 rpm with the windrower in the neutral position. On the cab display module (CDM) display, the transmission low charge pressure warning should turn off in less than 30 seconds. If not, stop the engine immediately and determine the cause.
7. After adequate charge pressure has been achieved (warning display has shut off) slowly move the ground speed lever (GSL) approximately 25 mm (1 in.) out of the neutral position and into the forward position for 20 seconds. This will fully charge the hydraulic system.
8. Run the engine up to 2000 rpm, slowly move the ground speed lever (GSL) fully in one direction and then fully in the opposite direction and check that the wheels respond positively and turn in the correct direction. Turn steering wheel and confirm that wheels turn in the correct direction.
9. Once the initial run-up is complete, cycle the lift linkage and table angle cylinder a few times.
10. Shut down the engine and remove the key.
11. Remove oil fill cap and top up the hydraulic oil reservoir to the full mark. Tighten oil fill cap. Check the system thoroughly for signs of leakages.
12. Close the platform. Refer to the windrower technical manual for procedure.
13. Check neutral settings. Refer to the windrower technical manual for procedure.
14. Engage the wheel drives. Refer to the windrower technical manual for procedure.

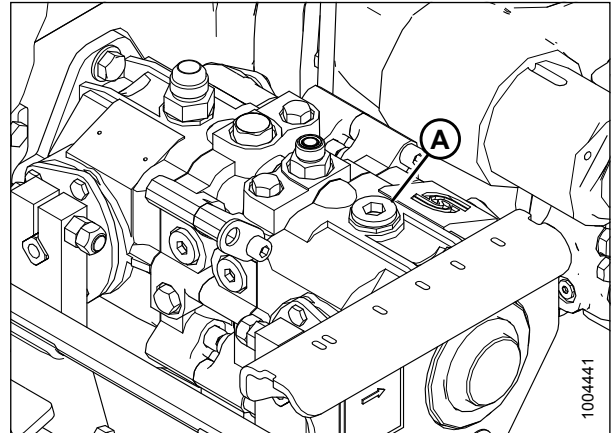


Figure 3.54: Traction Drive Assembly

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