A40D Auger Header
REEL SPEED SENSOR KIT (MD #318022)
INSTALLATION INSTRUCTIONS

The Reel Speed Sensor kit (MD #318022) is used to make a MacDon A40D or A40D GSS Auger Header from model year 2017 or later compatible with an M1 Series Windrower.

A list of parts included in the kit is provided.

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 instruction is currently available in English only.

Installation Time

Installation time for this kit is approximately 20 minutes.

Conventions

The following conventions are used in this document:

- Right and left are determined from the operator's position. The front of the header is the side that faces the crop; the back of the header is the side that connects to the windrower.
- Unless otherwise noted, use the standard torque values provided in the header operator's manual and technical manual.

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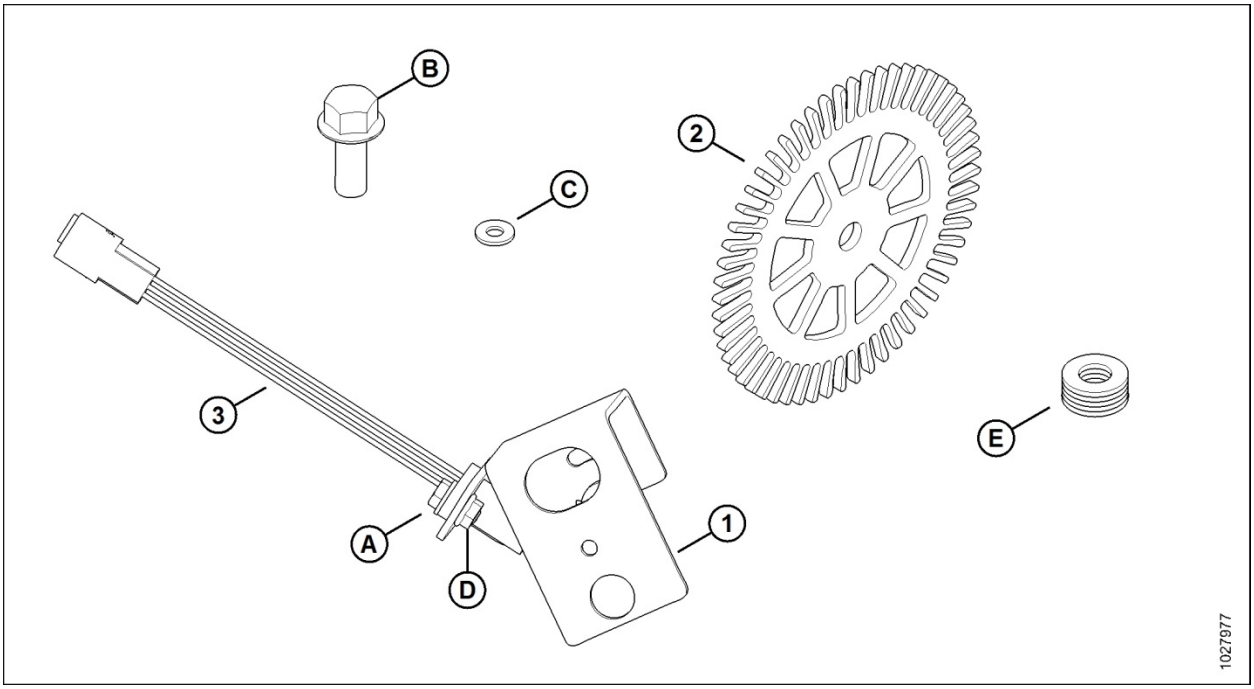
Parts List

This kit includes the following parts:



Ref	Part Number	Description	Quantity
1	318006	BRACKET – SPEED SENSOR	1
2	318004	DISC – ENCODER	1
3	143875	SENDER – SPEED	1
A	21572	BOLT – HEX HD 1/4-20 X 0.625 GR5 AA1J	1
B	135965	BOLT – HEX FLG SM HD 1/2-13 X 1.25 GR5 AA1J	1
C	18596	WASHER – FLAT SAE 9/32 ID X 5/8 OD AA1J	2
D	21455	NUT – FLG SER FACE 1/4-20 UNC GR5 AA1J	1
E	18599	WASHER – FLAT SAE 17/32 ID X 1 1/16 OD AA1J	5

NOTE: Items #1, 3, A, and D come preassembled.

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To install the Reel Speed Sensor kit, follow these steps:

WARNING

To avoid bodily injury or death from unexpected start-up of machine, always stop engine and remove key from ignition before leaving operator's seat for any reason.

1. Open the kit and compare the parts with the parts list in this instruction to ensure all parts are present.
2. Lower the header to the ground.
3. Turn off the engine and remove the key.
4. Open the left endshield by inserting screwdriver or equivalent into opening (A) at the base of endshield, and push to release latch.
5. Pull from the bottom and lift endshield until shield support (B) engages bolt. Check that support (B) is engaged before releasing hold on shield.

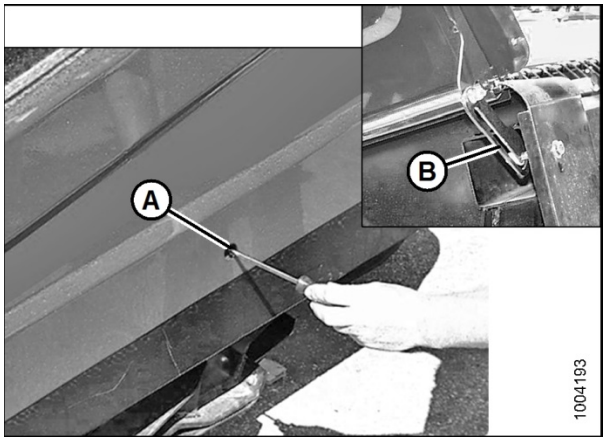

Figure 1: Left Endshield

6. Locate existing speed sender (A), forward of the reel motor, and disconnect it from the header wiring harness.
7. The speed sender has black silicone around it to prevent gearbox contamination. Use a utility knife to cut the silicone.
8. Remove bolt, washers, and nut securing the speed sender (A) to the reel drive housing, and then remove the speed sender. Discard sender or keep it as a spare. Retain hardware for installation of new sender.
9. Clean up silicone residue on gearbox, and ensure no debris gets into the gearbox.

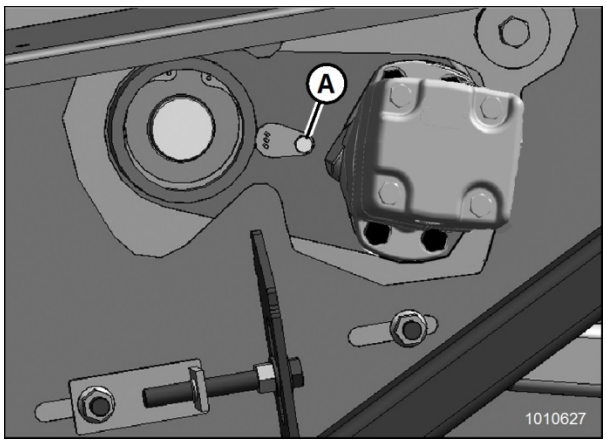

Figure 2: Left End of Header with Original Speed Sender

10. In place of the old speed sender, insert rod (A) on the new speed sensor bracket (B) (MD #318006) into the larger of the two holes forward of the reel motor. Secure bracket to the reel drive housing with bolt (C) and washers (D) retained from Step 8. Finger tighten.

    NOTE: The speed sender was preinstalled on the bracket at the factory.

    NOTE: The illustration is at an angle so that the relevant parts are visible. The side of the bracket with the open holes should be facing you. The motor and other surrounding parts were left out of the illustration for clarity.

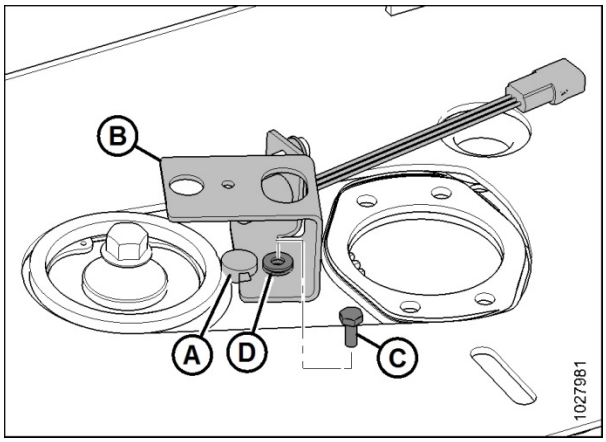

Figure 3: Installing Speed Sensor Bracket and Speed Sender

11. Install encoder disc (A) (MD #318004) on shaft with five flat washers (B) (MD #18599) and one flange head bolt (C) (MD #135965).

12. Tighten bolt (C) to 113 Nm (83 lbf·ft).

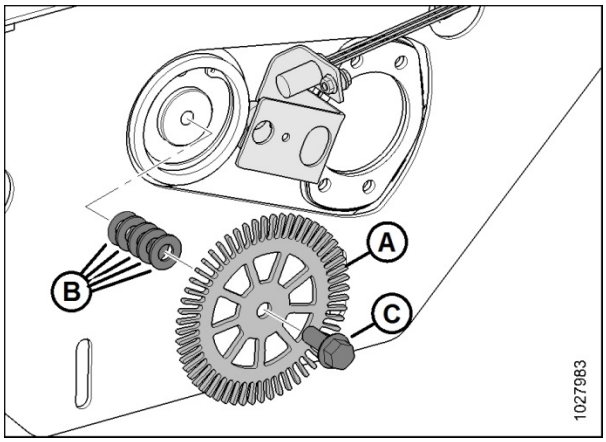

Figure 4: Installing Encoder Disc

13. Insert one flat washer (A) (MD #18596) between the new speed sender (B) and the encoder disc (C) as a spacer. Pivot the speed sensor bracket, and hold sender (B) tight against encoder disc (C), then using a 7/16 in. extended length socket, tighten the speed sensor bracket mounting bolt to 13 Nm (112 lbf·in). Remove washer (A).

14. Double-check the air gap between speed sender (B) and encoder disc (C). Ensure the gap does not exceed 2 mm (1/16 in.).

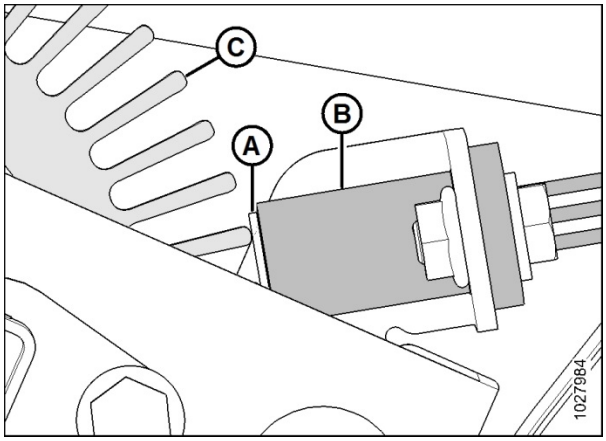

Figure 5: Setting Gap between Speed Sender and Encoder Disc

15. Apply silicone along edge (A) of the speed sensor bracket closest to the encoder disc as shown in the illustration at right.

    NOTE: The illustration shows the base of the speed sensor bracket with the top section, the speed sender, and the encoder disc removed for clarity.

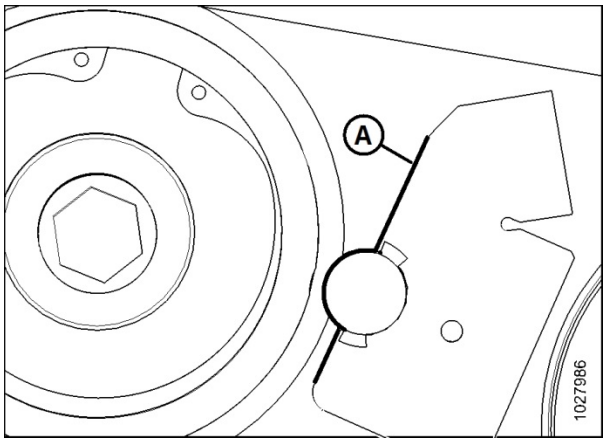

Figure 6: Silicone Application Location

16. Plug connector P87 on the header wiring harness into the Deutsch receptacle (A) on the end of the speed sender.

    NOTE: Some parts have been removed from the illustration for clarity.

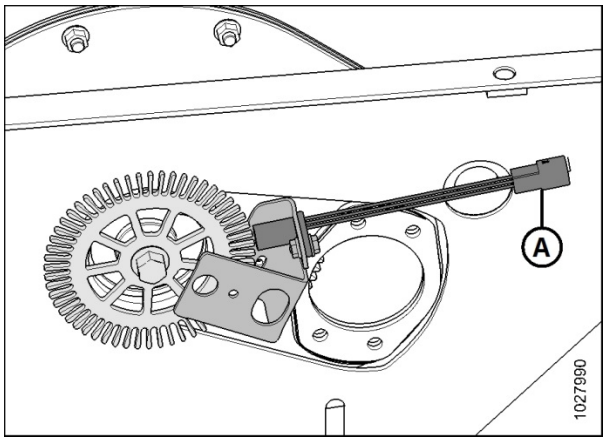

Figure 7: All Parts Installed

17. To close the left endshield, grasp top of endshield, push slightly, and move support inboard to disengage.
18. Lower endshield to about 300 mm (12 in.) from closed position.
19. Release endshield so that it drops to closed position. Ensure endshield is latched.