

Installation Instructions

Transmission Drive Spring Kit

Part No. 5600886

Fits Ferris FW35, FM35, and Snapper Pro SW35 Walk-Behind Units
in serial number range 2017130992 & Below

Kit Contents					
Part No.	Qty.	Description	Part No.	Qty.	Description
5103676	1	SPACER, .39 X .55 X .38, PM, CZ	5025326	1	WASHER, .39 X 2.00 X X .14
5025013X16	1	BOLT, 3/8-16 X 2 GD5 CZ	5104676	1	SPRING EXT, 1.50ODX4.75LGX.177WR, BLK
5046860	1	SPACER, .39 X 1.00 X .50, PM, CZ	5025394	1	NUT, 3/8-16 HEX NYLOCK FLANGE

⚠ WARNING



Remove the ignition key prior to performing maintenance on the unit.

Before beginning any service work turn off the PTO, engage the parking brake, turn off the ignition, remove the ignition key.

Replacing the Transmission Drive Spring Kit

These instructions detail the procedure for replacing the transmission drive spring on Ferris FW35 and Snapper Pro SW35 walk-behind mowers and Ferris FM35 walk-behind flail mowers.

1. Park the unit on a flat level surface such as a concrete floor. Depress the neutral return pedals to return the transmissions to neutral, disengage the PTO, engage the parking brake, turn ignition switch to OFF, and remove the key.
2. Loosen and jam nut (A, Figure 1) on the spring anchor eyebolt (B).
3. Loosen the adjustment nut (C) to release the majority of the tension exerted on the belt by the spring (D).



⚠ WARNING

Use extreme caution when rotating the idler arm with the breaker bar due to the increased tension in the spring as the idler arm is being rotated. Injury may result if the breaker bar is prematurely released while the spring is under tension.

4. Using a 1/2" breaker bar, place the square end in the square hole located in the idler arm (A, Figure 2), carefully rotate the breaker bar **counter-clockwise**, which will relieve the tension on the belt exerted from the idler arm.
5. Slide the drive belt over the edge of the front stationary pulley (B). Carefully release the tension on the breaker bar.
6. Remove the belt from the adjustable idler pulley (I, Figure 1).

Figure 1 and Figure 2 depict the underside of the engine deck as viewed by looking up towards it. The arrow (K, Figure 1) indicates the front of the machine.

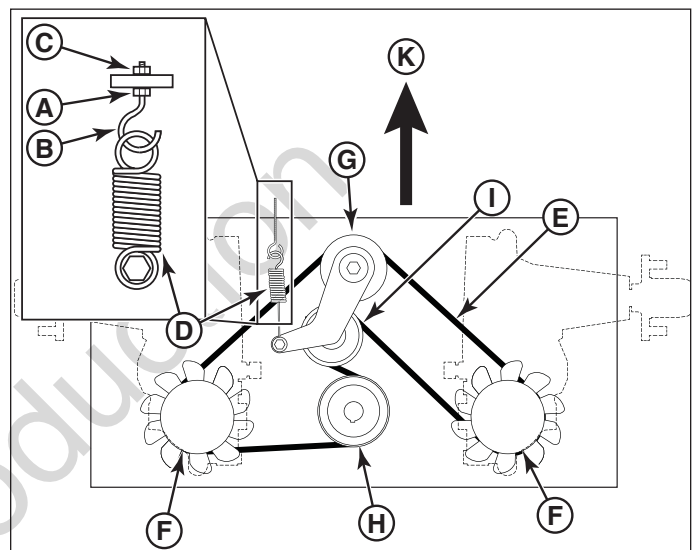


Figure 1. Transmission Drive Belt Routing

- A. Jam Nut
- B. Spring Anchor Eyebolt
- C. Adjustment Nut
- D. Spring
- E. Transmission Drive Belt
- F. Transmission Pulleys
- G. Front Stationary Pulley
- H. Crankshaft Pulley
- I. Adjustable Idler Pulley
- J. Coil-to-coil Spring Measurement
- K. Arrow depicting the front of the machine.

7. Disconnect the spring (D) from the spring anchor eyebolt (B).
8. Remove the hardware (A, B, C, Figure 3) and spacer (D) that secures the existing spring (E) to the idler arm (F). Discard the bolt (A), spacer (D), spring (E), and nut (C). Retain the washer (B).
9. Install the new 3/8" X 2" bolt (G) down through the existing 3/8 washer (B), the idler arm (F), the .39 X .55 X .38 spacer (H), the hook of the new spring (I), the .39 X 1.00 X .50 spacer (J), the .39 X 2.00 X .14 washer (K), and then secure with a nylock flange nut (L).
10. Connect the spring (A, Figure 4) to the spring anchor eyebolt (B).
11. Re-install the transmission drive belt (E, Figure 1) making sure that the V-side of the belt runs in the grooves of the transmission pulleys (F), and the crankshaft pulley (H). The back side of the belt should contact the face of the adjustable idler pulley (I).
12. Using a 1/2" breaker bar, carefully rotate the breaker bar **counter-clockwise**, and install the belt onto the front stationary idler pulley (G), making sure that the V-side of the belt runs in the grooves of the pulley.
13. Turn the adjustment nut (C, Figure 4) until the coil-to-coil measurement (D) of $3\text{-}3/8" \pm 1/8"$ (8.6 cm \pm 0.32 cm) is achieved.
14. Tighten the jam nut (E).

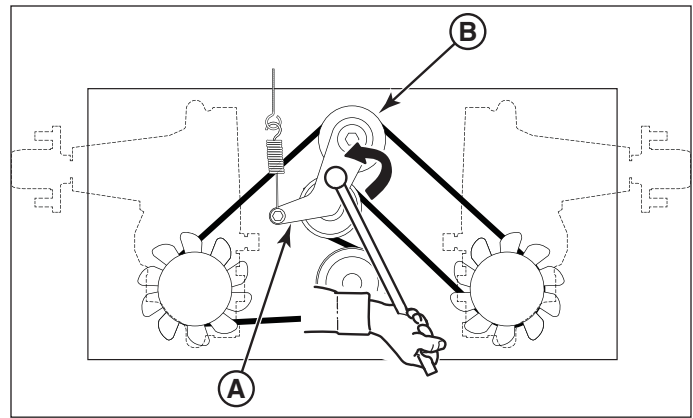


Figure 2. Rotating the Idler Arm with the Breaker Bar

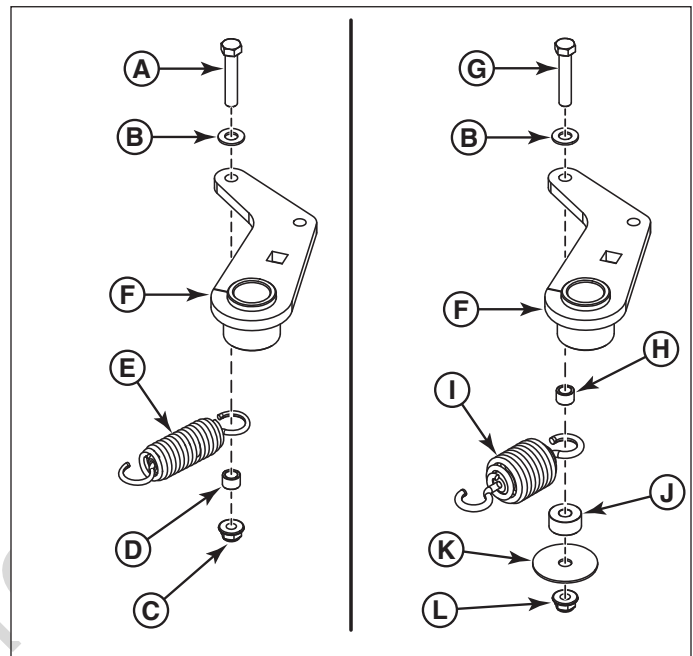


Figure 3. Replacing the Transmission Drive Spring

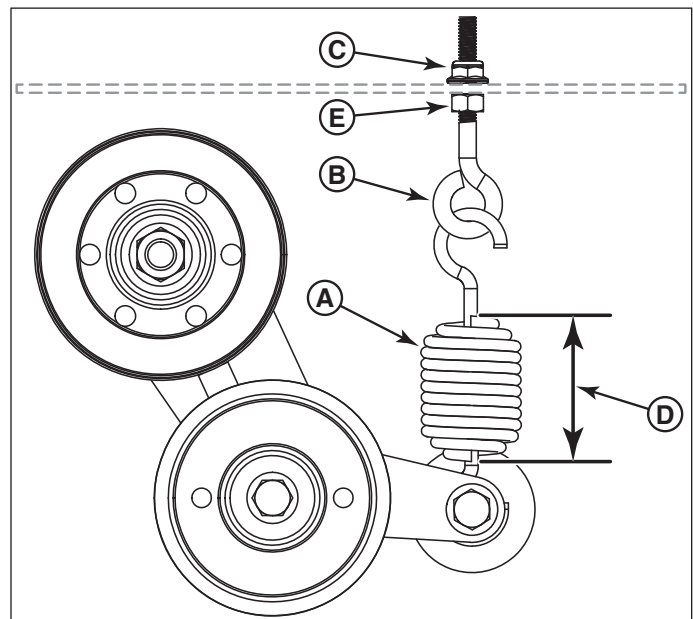


Figure 4. Coil-to-Coil Spring Measurement