



INSTRUCTION BULLETIN

No. 340727
Machine: Sentinel
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Rev. 00

NOTE: DO NOT DISCARD the Parts List from the Instruction Bulletin. Place the Parts List in the appropriate place in the machine manual for future reference. Retaining the Parts List will make it easier to reorder individual parts and will save the cost of ordering an entire kit.

NOTE: Numbers in parenthesis () are reference numbers for parts listed in Bill of Materials.

Installation instructions for **kit number 770182**

SYNOPSIS / PROBLEM:

This kit contains the parts needed to install washers on the Sentinel conveyor. These washers are necessary to limit the travel of the bearing block, reducing chances of the chain coming loose from the sprockets.

Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: NONE

(Estimated time to complete: Between 1 to 1.5 hours)

PREPARATION:

1. Start the machine and park it on a clean level surface.
2. Tilt the hopper.



WARNING: Lift arm pinch point. Stay clear of hopper lift arms.

3. Engage hopper support pin-hopper tilt (low dump) or the support bar-hopper lift/tilt (high dump option).



WARNING: Tilted hopper may fall. Engage hopper support pin.

4. Turn off machine, remove key, and set parking brake.

FOR SAFETY: Before leaving or servicing machine, stop on level surface, turn off machine, and remove key.

5. Clean both ratchet mechanisms and area surrounding the ratchet mechanisms. (Refer to Fig.1)

INSTALLATION:

1. Check the conveyor assembly to see where the ratchets are resting. Refer to Fig. 1 for locations of pins and ratchets.

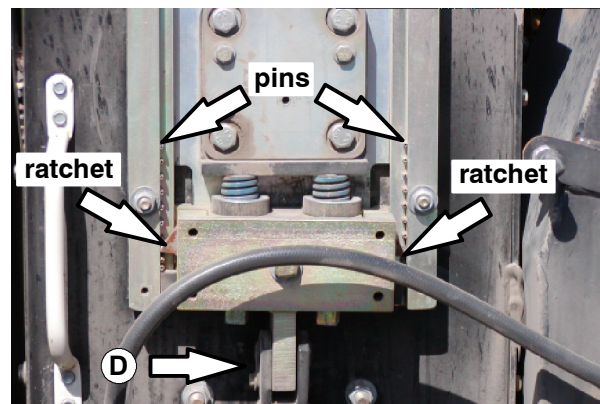


FIG. 1

NOTE: If the ratchets are resting below the second pins, complete Procedure 1. If the ratchets are on the second pins or above, complete Procedure 2.

PROCEDURE 1: Ratchets below second pins

2. Remove the rear upper panel from the conveyor.

3. Position a small bottle jack on the conveyor frame so the jack is underneath the part of the conveyor coupling assembly nearest either the left or right side panel. Refer to arrows in Fig. 2 for where bottle jack should be positioned.

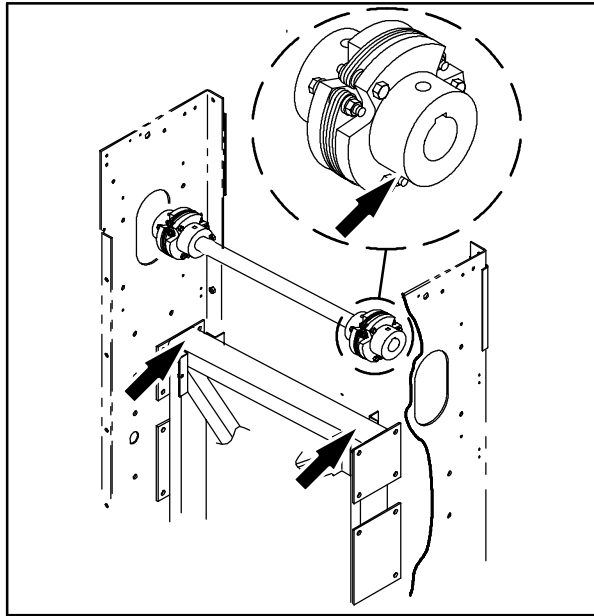


FIG. 2

4. Use the jack to place a small amount of tension on the shaft. This tension will keep the bearing block from moving down and take some pressure off the small coil springs located underneath the bearing housing.

NOTE: Refer to Fig. 3 and Fig. 4 for locations of parts assembled in Step 5 through Step 12.

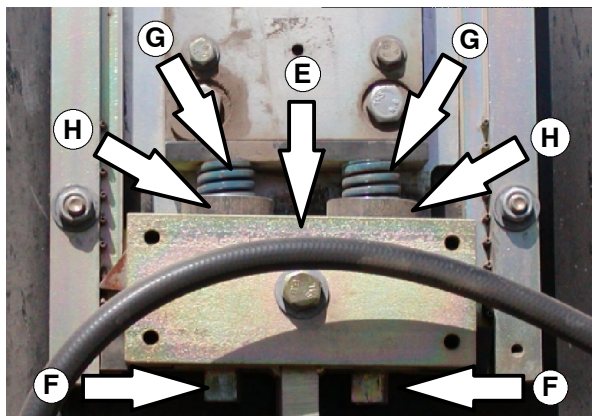


FIG. 3

5. Remove the retainer fastener (A) and the washer (B) from the chain tensioning cylinder (C) and upper clevis pin (D). Refer to Fig. 1 for location of upper clevis pin (D).
6. Remove the upper clevis pin (D) from the chain tensioning cylinder (C) and the spring block (E). Refer to Fig. 1 for location of upper clevis pin (D).
7. Loosen the plugs (F) supporting the coil springs (G) until it is possible to slide a washer (H) onto the spring block (E).
8. Tighten the plugs (F) so the coil springs (G) move up inside the washers (H) and the plugs (F) bottom out inside the spring block (E). The cup of the plug (F) must be flush with the bottom of the spring block (E).
9. Position the chain tensioning cylinder (C) back onto the spring block (E) and insert the clevis pin (D) back into the chain tensioning cylinder (C) and the spring block (E).
10. Reinstall the retainer fastener (A) and the washer (B) back into the clevis pin (D) and the chain tensioning cylinder (C). Refer to Fig. 1 for location of upper clevis pin (D).
11. Release the tension from the bottle jack and position it on the other side of the conveyor.
12. Repeat Steps 4 through 11 to install the washers (H) onto the other side of the conveyor. Proceed to Step 13 after washers are installed on both sides of the conveyor.
13. Position the rear upper panel back onto the conveyor assembly.
14. Tighten the four fasteners w/washers through the rear upper panel and into the rear lower panel. These fasteners must be tightened first to keep the rear upper panel from bowing into the conveyor and making contact with paddles.
15. Tighten the six fasteners through the rear upper panel and into the left and right side panels.
16. Disengage the hopper support pin-hopper tilt (low dump) or the support bar-hopper lift/tilt (high dump option).
17. Lower the hopper.

WARNING: Lift arm pinch point. Stay clear of hopper lift arms.

18. Start the machine and set it to sweep mode.

19. Check the spring block for binding.

PROCEDURE 2: Rachets at second pins or above

NOTE: Refer to Fig. 3 and Fig. 4 for locations of parts assembled in Step 1 through Step 8.

1. Remove the retainer fastener (A) and the washer (B) from the chain tensioning cylinder (C) and upper clevis pin (D). Refer to Fig. 1 for location of upper clevis pin (D).
2. Remove the upper clevis pin (D) from the chain tensioning cylinder (C) and the spring block (E). Refer to Fig. 1 for location of upper clevis pin (D).

NOTE: Loosen only one plug (F) at a time when using this procedure for installing the washers (H).

3. Loosen one plug (F) supporting the coil spring (G) until it is possible to slide a washer (H) onto each coil spring (G).
 4. Tighten the plug (F) from the previous step so the coil spring (G) moves up inside the washer (H) and the plug (F) bottoms out inside the spring block (E). The cup of the plug (F) must be flush with the bottom of the spring block (E).
 5. Loosen the other plug (F) supporting the coil spring (G) until it is possible to slide a washer (H) onto each coil spring (G).
 6. Tighten the plug (F) from the previous step so the coil spring (G) moves up inside the washer (H) and the plug (F) bottoms out inside the spring block (E). The cup of the plug (F) must be flush with the bottom of the spring block (E).
 7. Position the chain tensioning cylinder (C) back onto the spring block (E) and insert the clevis pin (D) back into the chain tensioning cylinder (C) and the spring block (E). Refer to Fig. 1 for location of upper clevis pin (D).
 8. Reinstall the retainer fastener (A) and the washer (B) back into the clevis pin (D) and the chain tensioning cylinder (C). Refer to Fig. 1 for location of upper clevis pin (D).
 9. Repeat Steps 1 through 8 to install the washers (H) onto the other side of the conveyor.
 10. Start the machine and set it to sweep mode.
 11. Check the spring block for binding.
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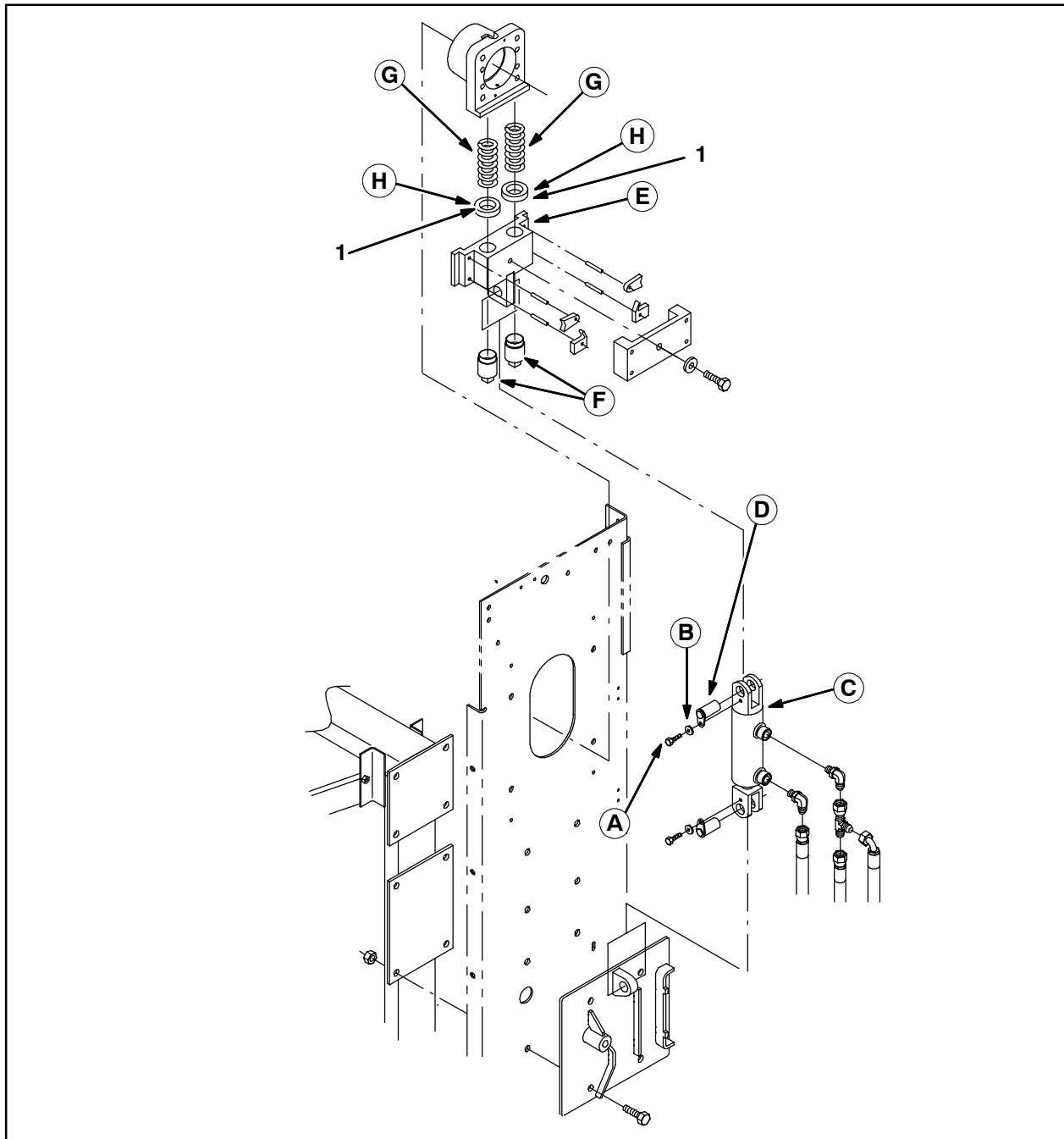


FIG. 4

Bill of Materials for the Sentinel Tension Limiter Kit 770182

Ref.	Tennant Part No.	Description	Qty.
▽	770182	Limiter Kit, Tens, CI [Sentinel]	1
▲	1 1016904	Washer, 1.26B 2.00D .50D, Stl	4

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