Fitting Instructions Belt BEL-27360C

Belt part number BEL-27360C can be used on all sizes and models of variable speed headers, but depending on the year of the machine some parts may have to be changed or removed. (SEE DRAWING 1).

The belt must only be used with a Flat idler and not a V idler.

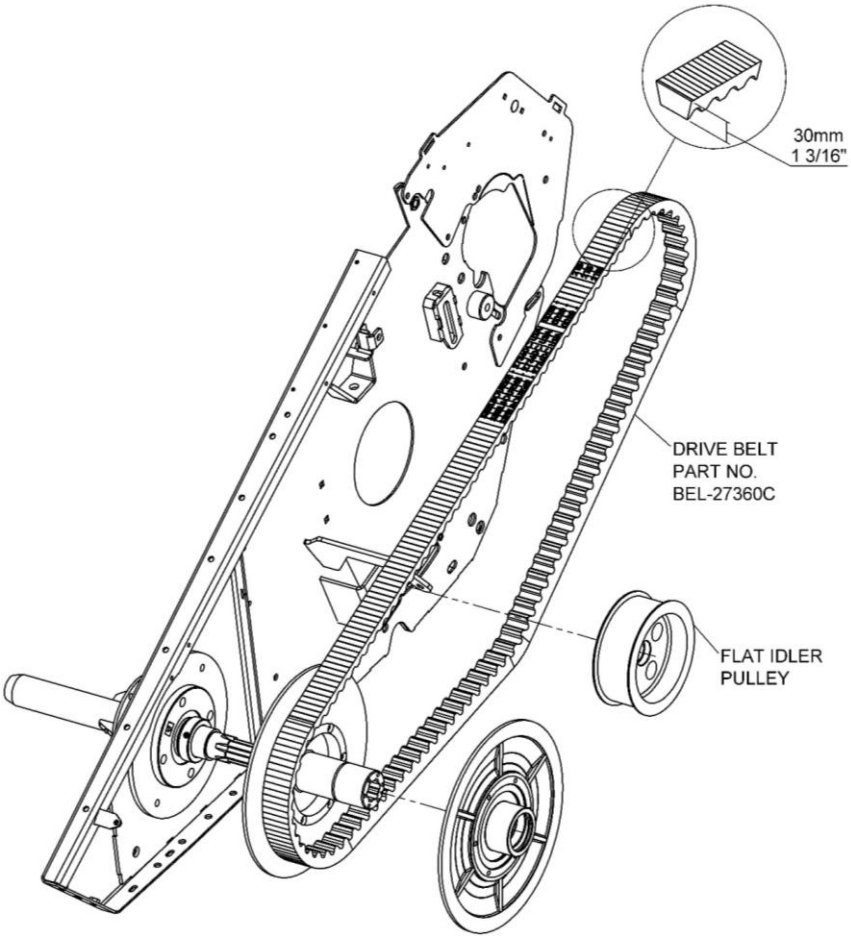
If the front pulleys have bolt in spacers between the sheaves these will need removing.

IMPORTANT ! - Before fitting a new belt check that the front and rear pulley sheave hubs and bores are not worn or wallowed out, as this will reduce belt life.

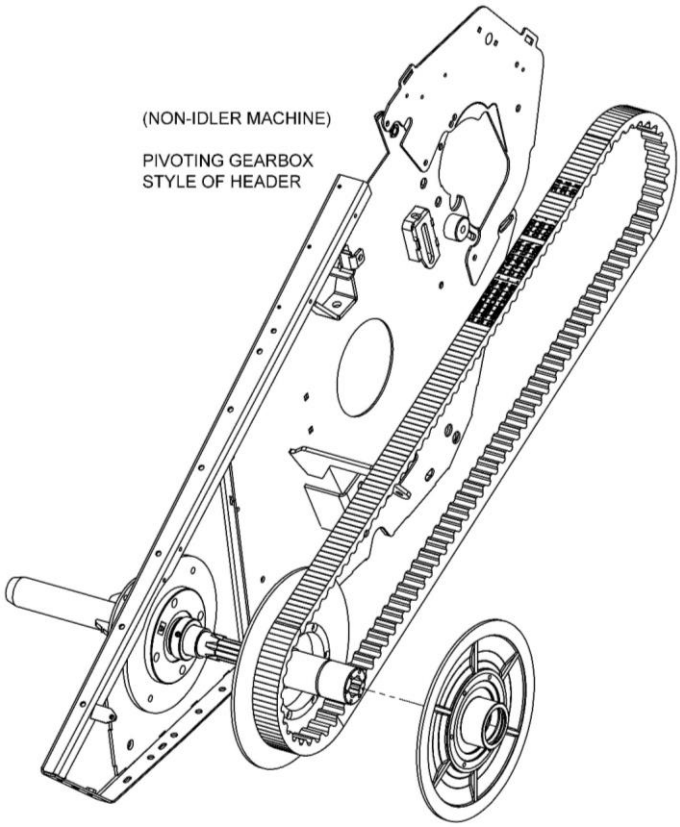
Ensure the pulleys are free to slide and not seized. It may also be necessary to fit new o-rings to the front and rear pulleys.

It is **very important** to ensure that the variable speed pulleys are greased as specified, see operator's manual section 10.4.1. A lack of lubrication will prevent the pulleys from sliding freely and will prohibit the belt tensioning system from functioning correctly. If the belt slips or a loss of drive to the rotor is experienced, contact your Shelbourne dealer immediately as operating the header under these circumstances will damage the drive belt.

DRAWING 1



DRAWING 2



Changing The Drive Belt

See also Operators Manual sections; 8.1.4, 9.3.1 & 9.3.2

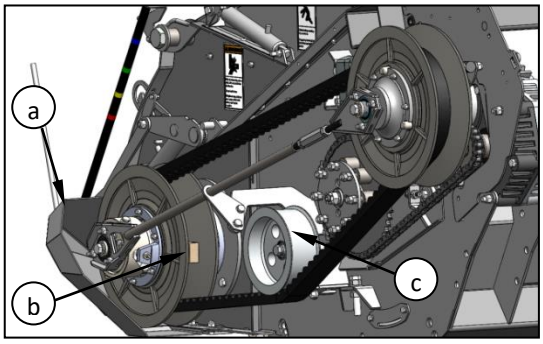
1. Run the machine at idle and speed the rotor up to maximum using the monitor.

2. **Stop the machine and implement the safe stop procedure** ⚠

3. Disconnect the PTO shaft from the combine.

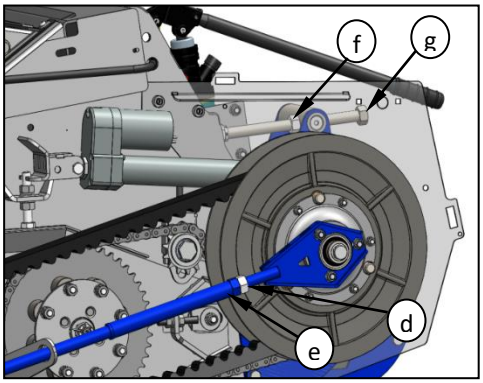
4. Remove the left hand drive guard and front corner guard (a).

5. Wedge a 25mm (1”) thick hard wood block (b) between the two inner flat surfaces on the inside of the rotor pulley sheaves.



6. Slacken the idler pulley (c) and remove it from its mounting bracket. **(CVS ONLY)**

OR Loosen the tie rod locking nut (d) and fully slacken the tie rod adjuster (e). Loosen the locking nut (f) and turn the gearbox adjuster rod (g) counter-clockwise to allow the gearbox pulley to move all the way forward. **(XCV ONLY)**



7. ⚠ Turn on the electrical power to the monitor **(Do not run the header)** and operate the monitor as if slowing the rotor speed to minimum. This will allow the gearbox pulley sheaves to be fully opened. The belt will now be slack.

OR If the existing belt has broken or the header cannot run, then operate the monitor to minimum speed so the top pulleys are fully open.

Using a pry bar, force open the rotor pulleys and “carefully” wedge apart using a small wedge, small enough so it doesn’t touch belt profile when rolling belt off and on. The more open the pulleys are wedged the easier it will be, approx. 20mm (3/4”) will be OK.
Slacken the idler pulley, **(CVS ONLY),** and remove from its mounting bracket, or loosen the tie rod locking nut and fully slacken the tie rod adjuster, **(XCV ONLY),** the belt will now be slack.

8. Ensure that the wooden block is wedged securely between the rotor pulley sheaves and remove the belt, first from the rotor pulley, then from the gearbox pulley.

Do not put hands between pulley sheaves ⚠

9. Fit the new drive belt, first to the gearbox pulley, then the rotor pulley and refit the idler pulley so it is at the top of its adjustment range**.** Ensure that the belt is fitted with the directional arrow pointing in the direction that the belt will travel. **SEE DRAWING 1.**

10. Carefully remove the block placed in the front rotor pulley.

11. Adjust the idler to correctly set the belt and refit the PTO shaft.

12. Replace all guards

CVS- Setting The Idler Position

13. To set the idler in the correct position, the header needs to be able to run. The idler position ensures correct minimum and maximum speed range by ensuring when the rear pulleys are fully closed the rotor pulleys are fully open. When the pulleys are fully open the dimension from inside corner to inside corner of pulley sheaves is **86mm (3 3/8")** and when fully closed is **62mm (2 7/16")** Note when set in closed position there is a **6mm (1/4")** gap on faces **SEE DRAWING 1.**

14. Run the machine at idle ensure the rotor speed is running at its slowest speed, the rear pulley sheaves are fully open.

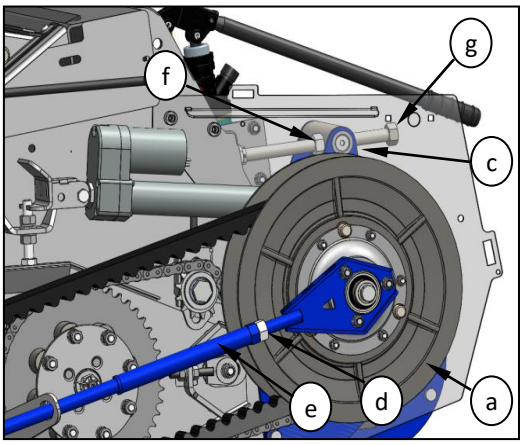
15. Stop the header and measure the front rotor pulleys inside corner to corner dimension to see if the front rotor pulleys are closed. If the dimension is less, then the idler needs adjusting down the slot. After adjusting always run up the header again and re check. NOTE – IF THE DIMENSION IS SLIGHTLY MORE THEN LEAVE AS IS.

16. Check that the belt clears the LH guards, lower front edge that laps into the fixed front corner guard, when set on slow speed. If it touches adjust guard lower to clear.

XCV- Setting The Belt Position

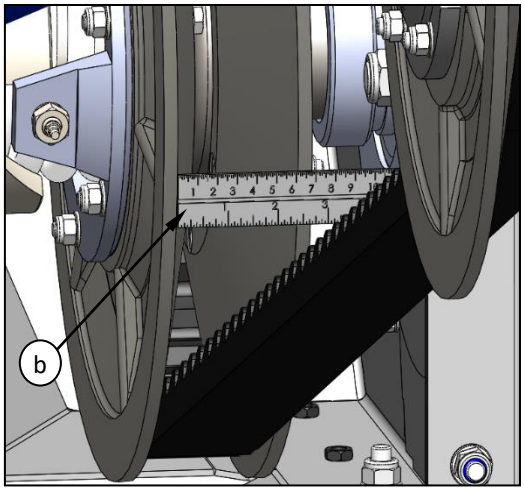
13. Remove the left hand drive guard and measure the gap between the rotor pulley sheaves (b). This should measure 61mm (2 $^{13}/_{32}$").

14 To achieve the correct gap the gearbox pulley will need to be moved by pivoting the gearbox (c). Loosen the tie rod locking nut (d) and fully slacken the tie rod adjuster (e). Loosen the locking nut (f) and turn the gearbox adjuster rod (g). This will pivot the gearbox and gearbox pulley, forcing the rotor pulley sheaves to open or close. Tighten the locking nut (f).



15. Refit the guard

16 Run the machine at idle and speed the rotor up to maximum and then back to minimum using the monitor.



17. Stop the machine and implement the safe stop procedure

18. Repeat steps 3, 4, 5, 6 & 7 until the required gap of 61mm (2 $^{13}/_{32}$") is achieved.

19. The tie rod now needs to be adjusted. Run the machine at idle and speed the rotor up to maximum using the monitor.

20. Stop the machine and implement the safe stop procedure

21. Disconnect the PTO shaft from the combine.

22. Turn on the electrical power to the monitor **(Do not run the header)** and operate the monitor as if slowing the rotor speed to minimum; see Section 8.1.4. This will allow the gearbox pulley sheaves to be fully opened. The belt will now be slack.

23. Turn the tie rod adjuster (e) until it just touches, then give it another **$^{1}/_{6}$** turn and tighten the lock nut (d).

24. Check that the belt clears the LH guards, lower front edge that laps into the fixed front corner guard, when set on slow speed. If it touches adjust guard lower to clear.

25. Replace all guards