

ENGINEERING CHANGE NOTICE – PRODUCT BULLETIN

ECN ID# 6967

DATE	May 8, 2023
BRAND	Batco and Westfield
PRODUCT	Field Loader Conveyor
MODEL	CX3 1549 FMD Under Mount Conveyors

DETAILS

A running change was made to the CX3 1549 FMD belt idlers which will be standard on all new production units.

In addition to this change, we've established a kit which contains new idlers for both drive belts, a new belt for the gearbox to drive roller, new drive pulleys for the gearbox to drive roller, as well as all necessary hardware.

Our expectation is that this kit could be used to resolve any field issues that may remain present after the factory recommended adjustments have been made. In cases where the kit is required, AGI will provide this to the dealer at no charge with labor being provided by the dealer or end use customer.

Dealers must call to order the kit and have the serial number and shipping address for where they want the kit shipped to.

The kit part number is 15011083-BK – CX3 Under Mount Kit

To perform this upgrade, you will need to have your conveyor:

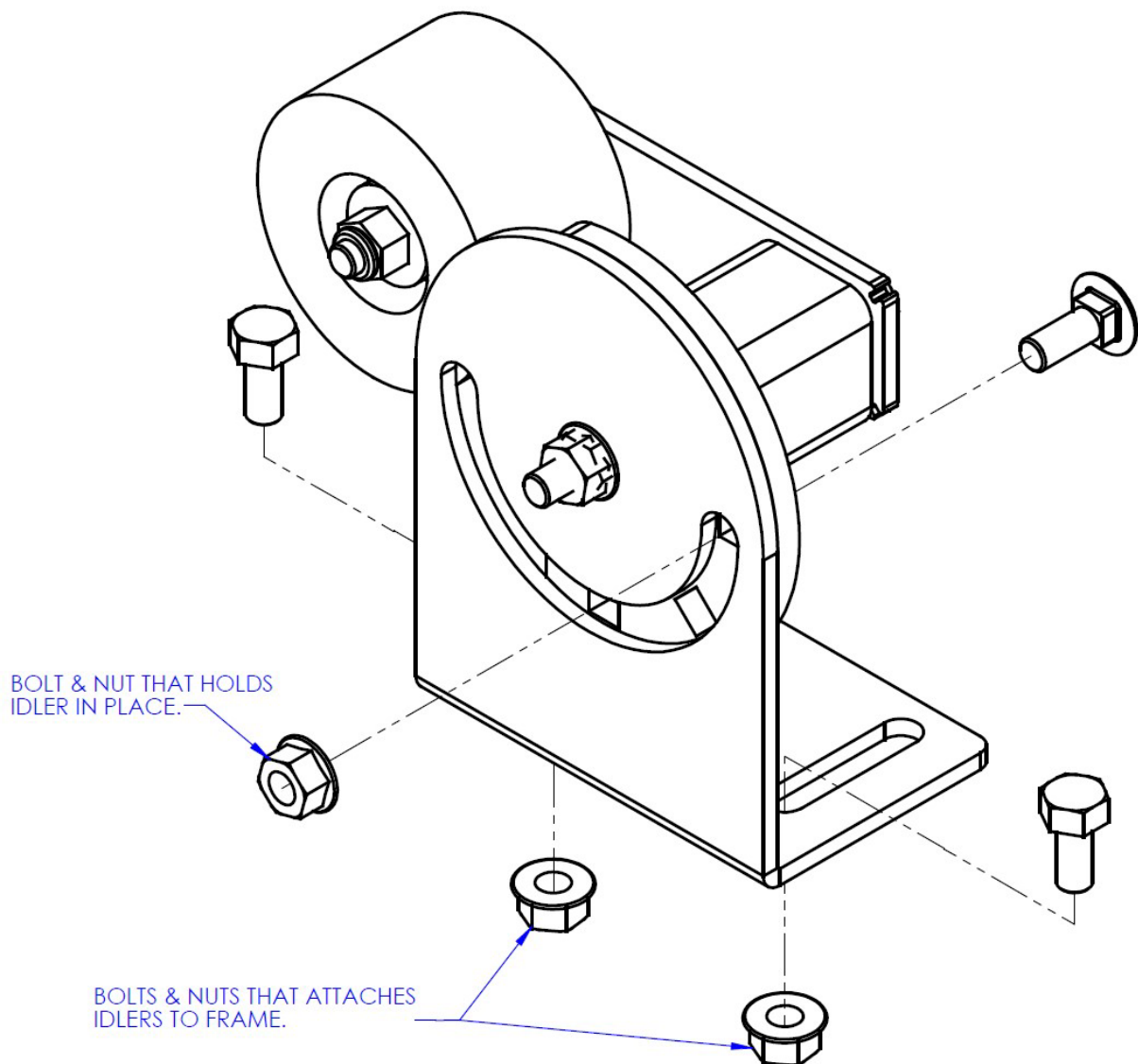
1. Parked on a level surface with the wheels chocked.
2. Have the motor shut off and locked out.
3. Have your conveyor in a position where you can easily reach the undermount drive system.

To remove the old idlers:

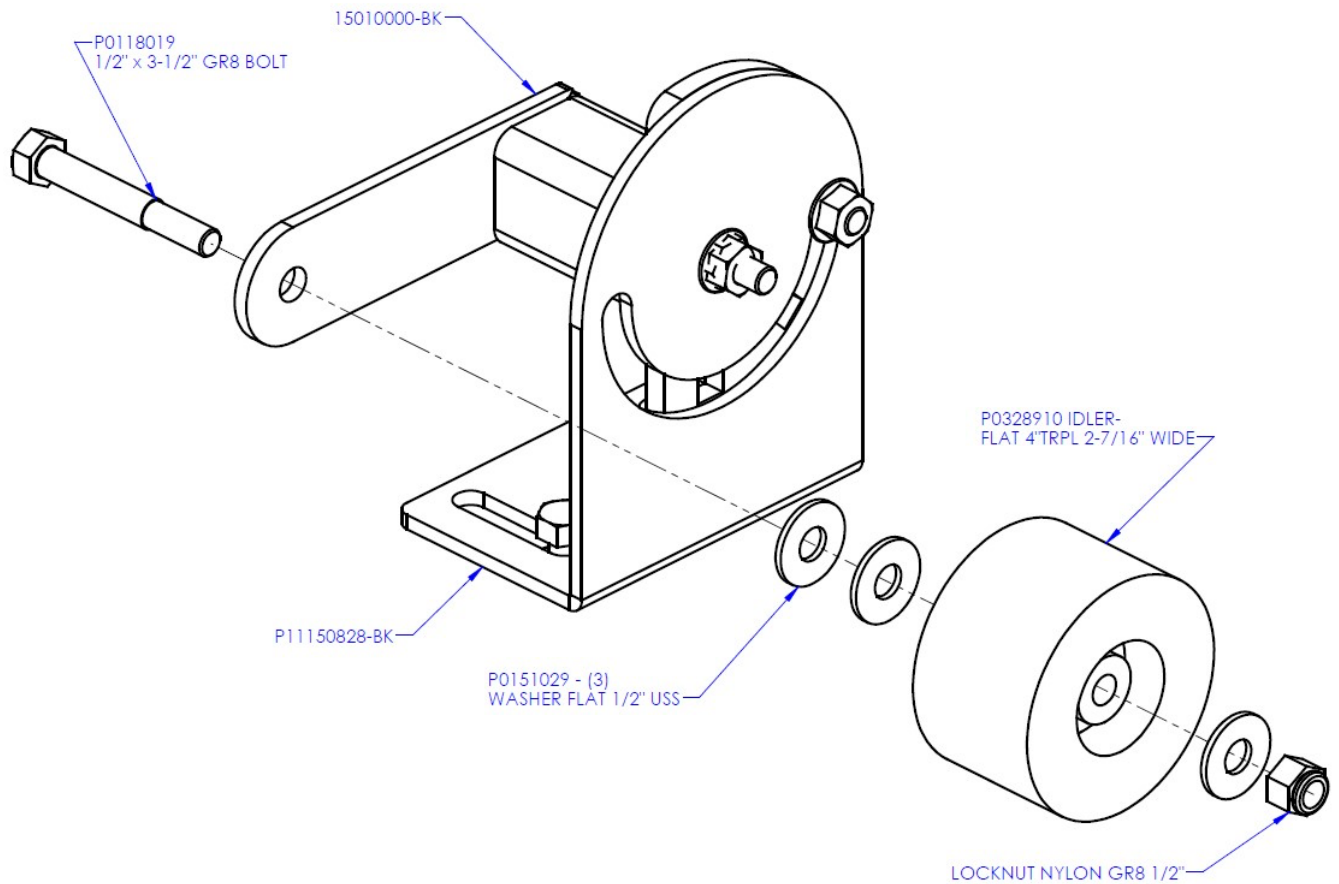
1. Remove the $\frac{1}{2}$ " x $1\frac{1}{4}$ " carriage head bolt and $\frac{1}{2}$ " flange nut that hold the idler body at an angle to apply tension to the belt.

*****NOTE: the idler is under tension, when removing this bolt, the idler body may spring down. Use caution when removing this bolt.*****

2. Once the idler is not under tension, you can loosen and remove the two $\frac{1}{2}$ " nuts & $\frac{1}{2}$ " x 1" hex bolts that attach the base of the idler to the frame.

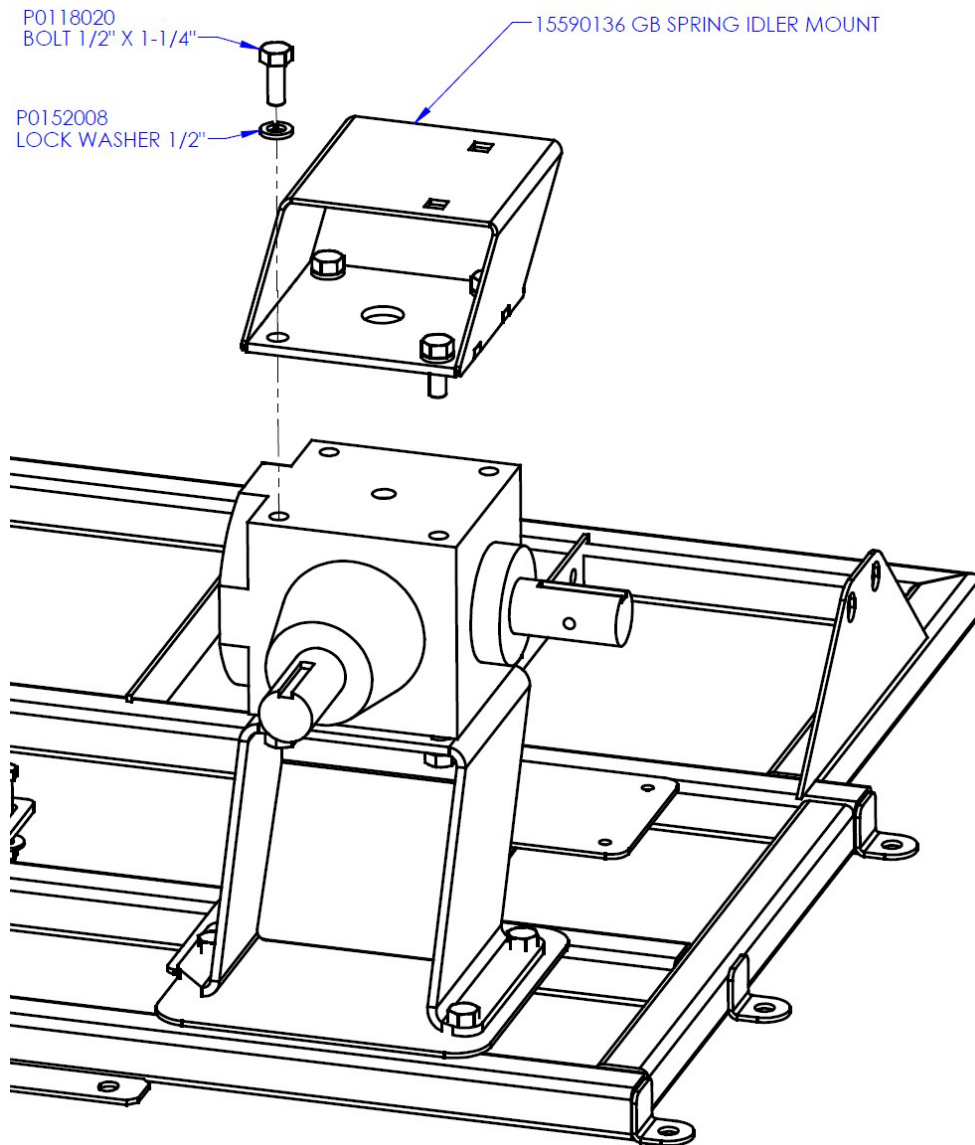


3. Once the idlers are removed from the under mount, remove the $\frac{1}{2}$ " x 3-1/2" hex bolt and $\frac{1}{2}$ " nut holding the idler onto the assembly. Set the idler pulley (P0328910) aside as we will be using it in the new idler assembly.



4. Once the idler has been removed from above the gearbox, remove the four $\frac{1}{2}$ x 1" hex bolts and four $\frac{1}{2}$ " lock washers from the top of the gearbox. Remove part 15590136 GB spring idler mount from the top of the gearbox and discard.

****Note: Keep the bolts that attached the base onto the gearbox as you will need those to attach the new idler system to the gearbox.****

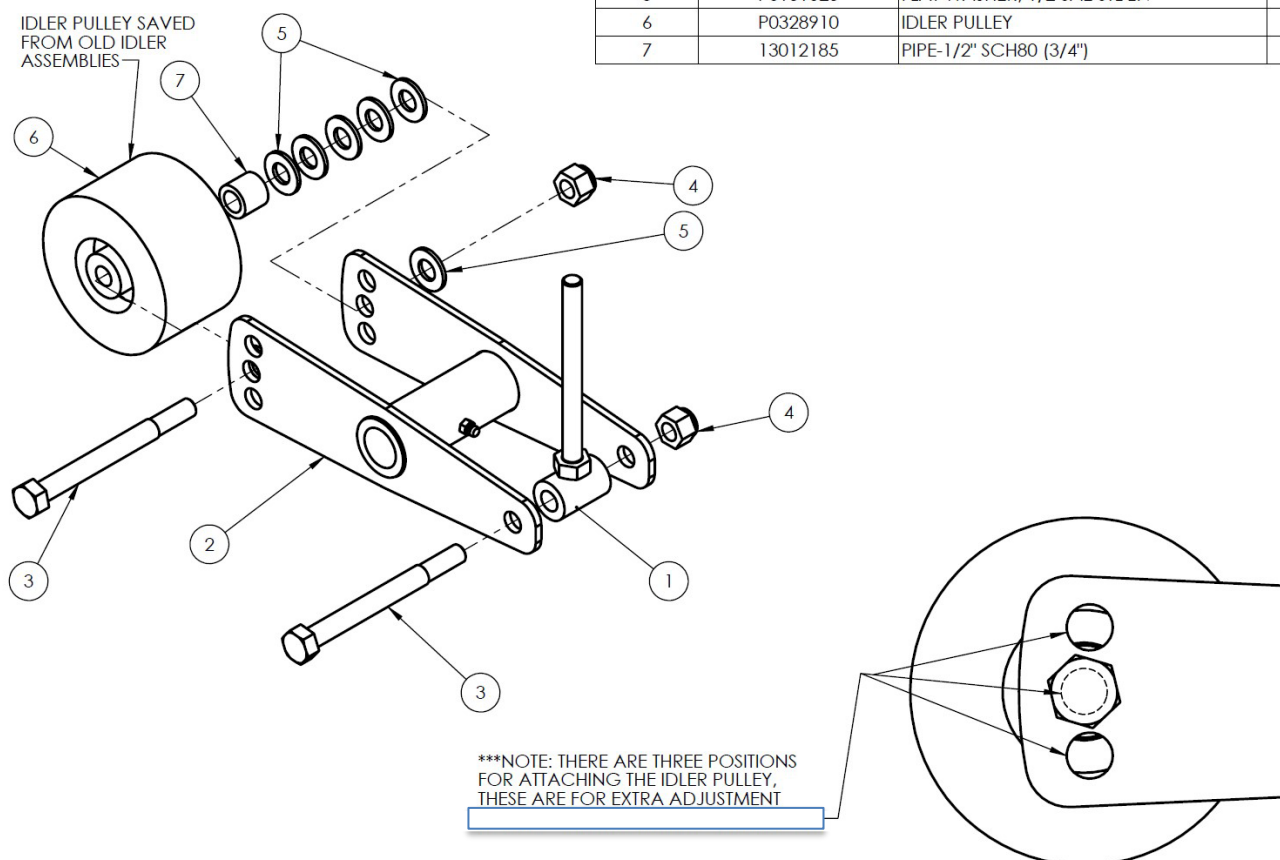


5. Using the pulleys (P0328910) you set aside, assemble them onto the idler pivot (15010150-BK) using a $\frac{1}{2}$ x 5" bolt (P0118024), spacer (13012185), five $\frac{1}{2}$ " flat washers (P0151025) & a $\frac{1}{2}$ " nylock nut (P0134008) as shown in the drawing below.
6. At this point remove the spring idler tightener (15010153-BK) and the $\frac{1}{2}$ x 5" bolt (P0118024) and $\frac{1}{2}$ " nylock nut (P0134008). These will need to be assembled onto the drive assembly separately.

NOTE: when assembling the idler pulley, note that there are three holes in the idler pivot (15010150-BK). These are to adjust and help match the length of your belt.

NOTE: The use of five washers when assembling the pulley to the idler pivot is done so you can centre the pulley on the belt.

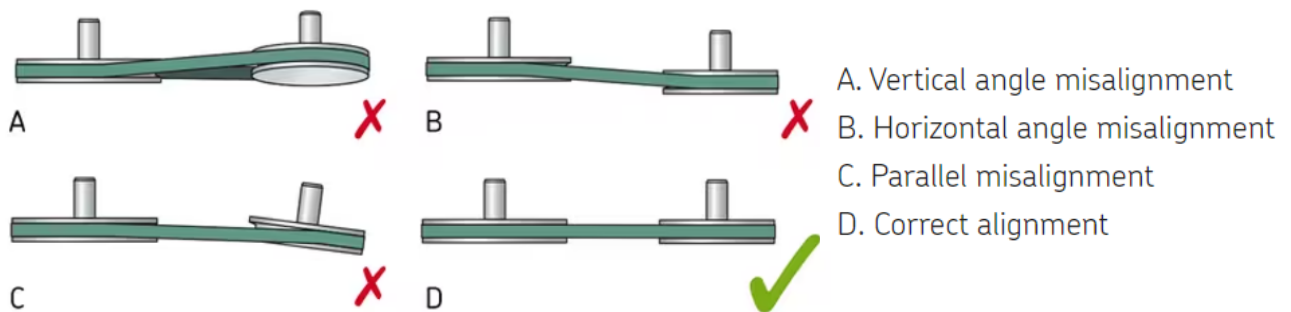
ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	15010153-BK	SPRING IDLER TIGHTENER, PT BLK	1
2	15010150-BK	IDLER PIVOT	1
3	P0118024	HEX BOLT, 1/2x5 UNC GR8 ZN	2
4	P0134008	NYLON LOCK NUT, 1/2 UNC GR8 ZN	2
5	P0151025	FLAT WASHER, 1/2 SAE STL ZN	7
6	P0328910	IDLER PULLEY	1
7	13012185	PIPE-1/2" SCH80 (3/4")	1



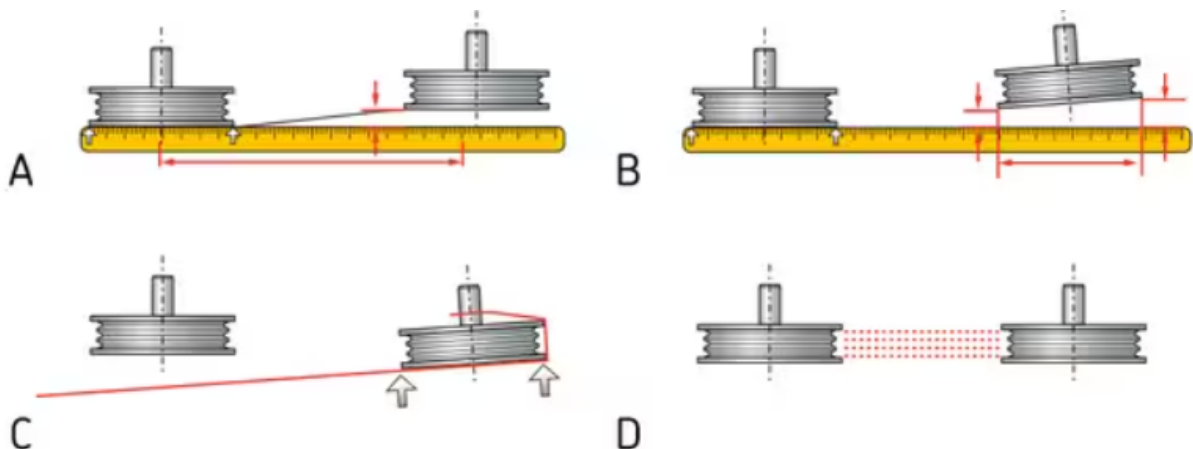
7. Before installing the idler between the clutch and the gearbox, you will need to ensure the pulleys are aligned. See next page for important pulley alignment procedure and points.

Pulley Alignment Procedure

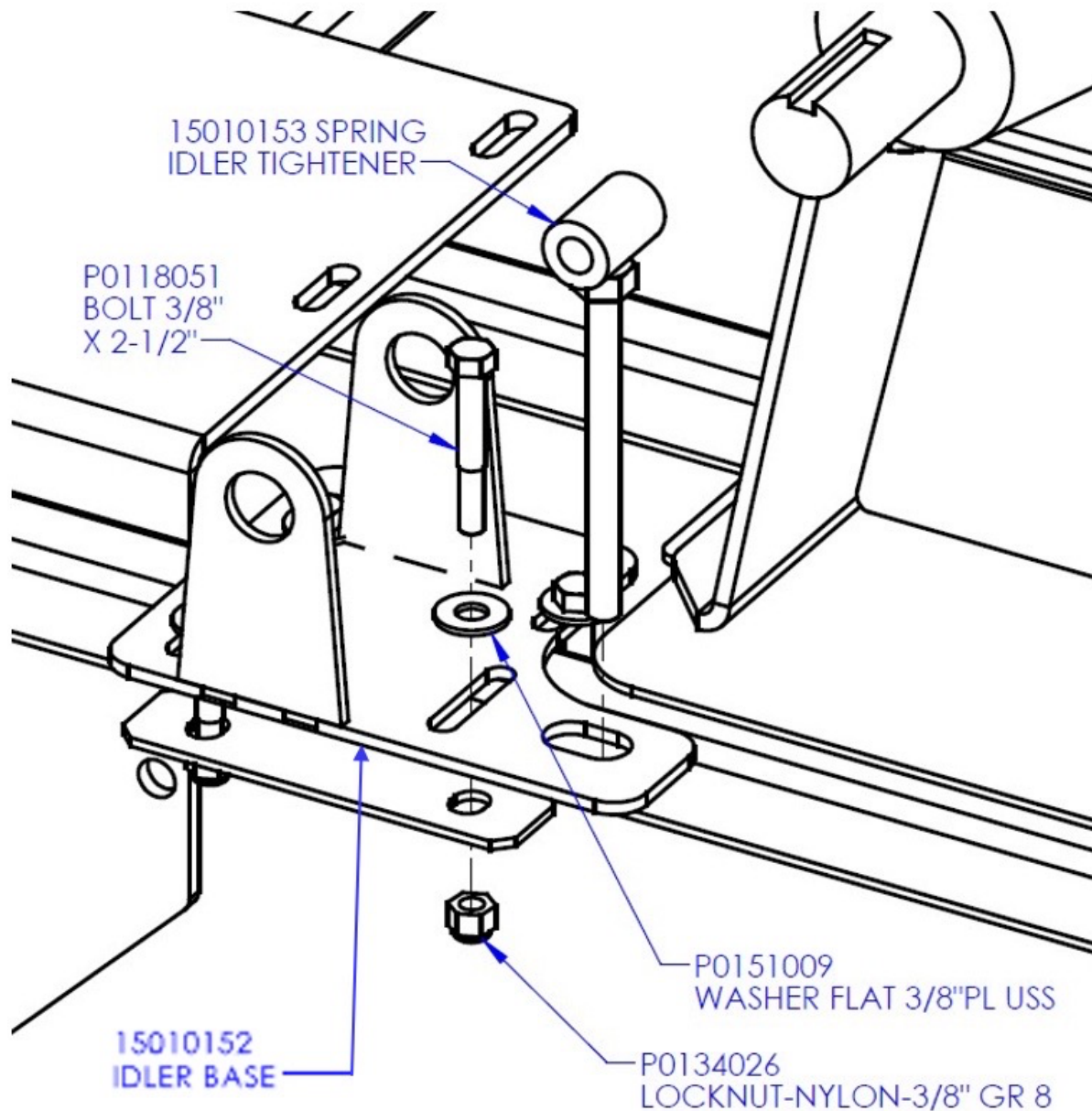
1. There are three types of belt misalignment that must be avoided. See below.
 - a. A rule of thumb is a v-belt drive system can have up to $\frac{1}{2}$ degree of misalignment per foot of belt length. This would be approximately $\frac{1}{16}$ " for the clutch and gearbox pulley set up and $\frac{1}{8}$ " for S-Drive belt set Up.



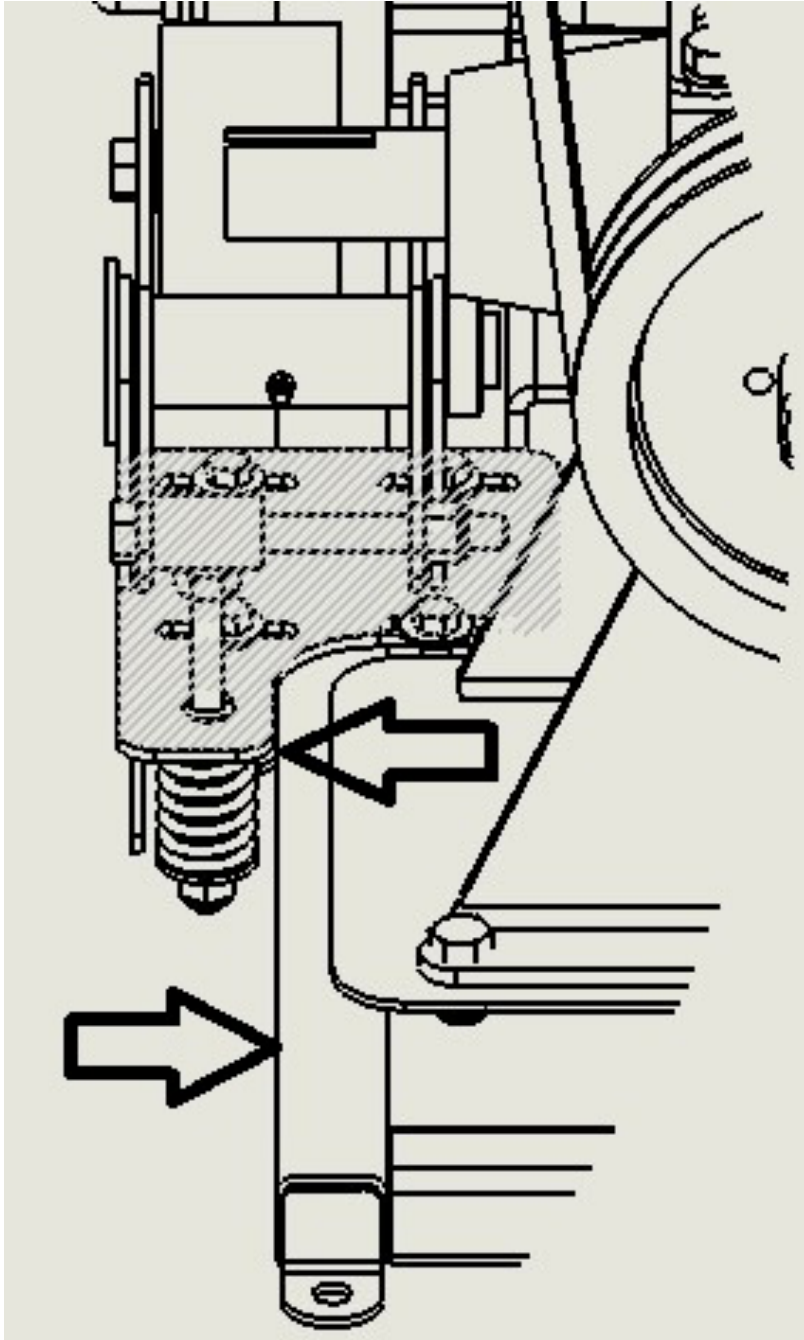
2. Correct Align Procedure.
 - a. As shown below place your straight edge to ensure parallel alignment as in picture A.
 - b. As shown in picture B check for angular misalignment and adjust accordingly.
 - c. Picture C show the use of a string to check for alignment. When using a string ensure the string is straight and makes contact on four points two on each pulley.
 - d. Picture D shows Correct Alignment.



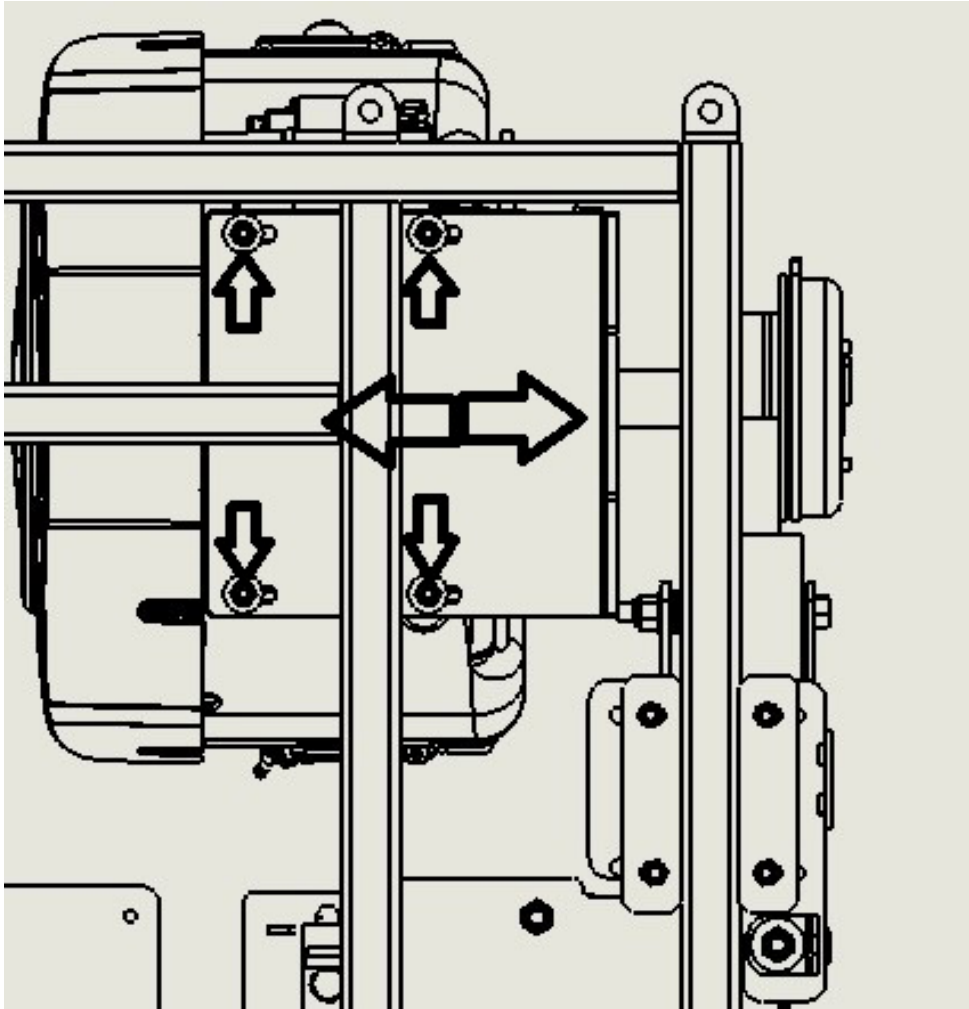
8. To install the new idler between the clutch and the gearbox, first place the idler base (15010153) over the welded plate, match up the holes and tighten the base down with 3/8" x 2-1/2" bolt, flat washer and nylock nut. At this point you must drop the idler tightener into the hole in the plate so it can be attached to the idler in the next step.



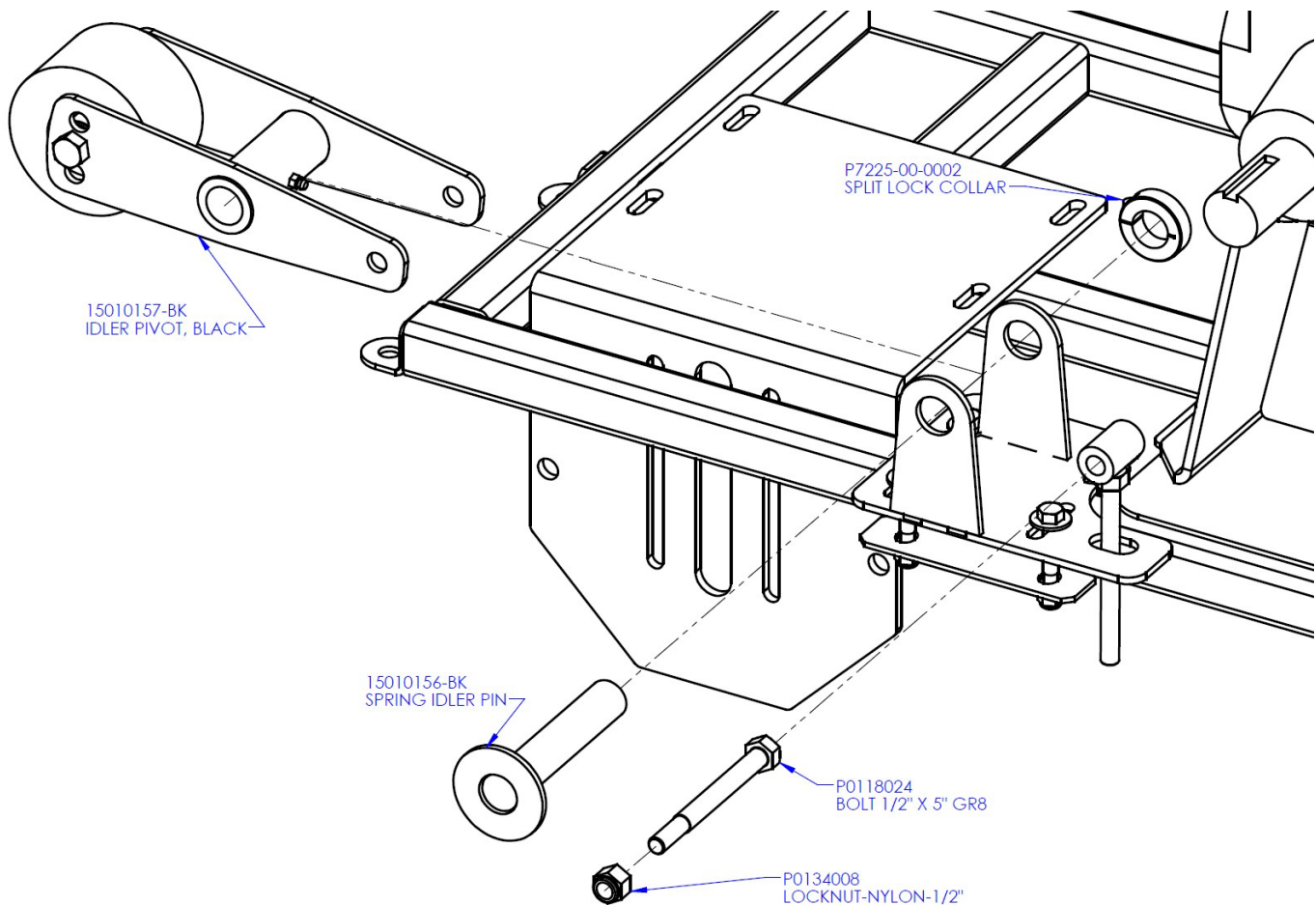
9. Note that the extended part of the idler base (15010153) that the idler pin sticks through should be flush with the edge of the side tube of the Under Mount base.



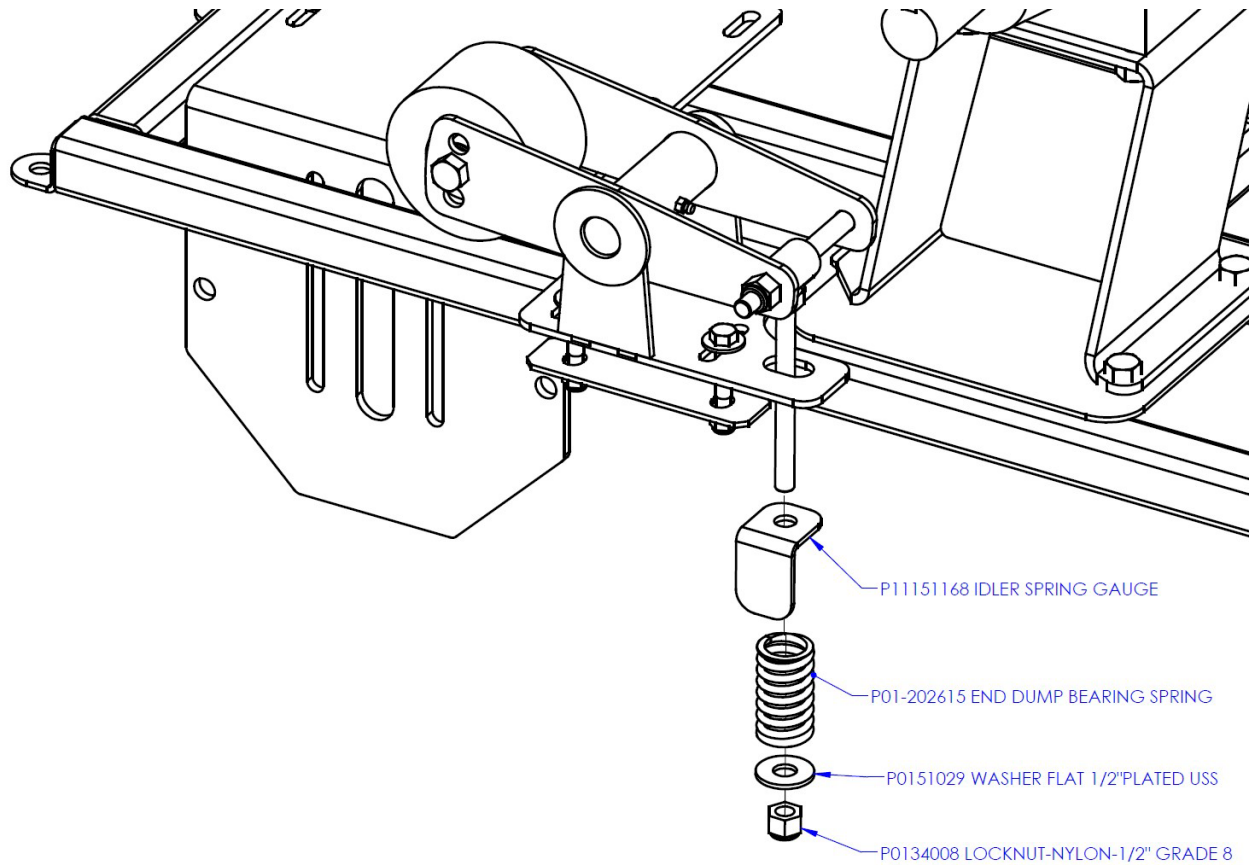
10. When setting the idler in this position, if that causes the idler pulley not to be inline with the clutch, you must loosen the four bolts holding the motor in place and pull the motor forward or push it back until they are inline.



11. After checking the alignment of the idler base, you will have to slide the idler (15010157) into place under the belt and the pulley and then pin it into place using the spring idler pin (15010156-BK). Attach the split lock collar (P7225-02-0002) to the end of the shaft to hold it in place.
12. Apply grease to the zerk until grease starts to come out both sides. Rotate the idler as much as possible to get the grease all the way around the shaft.
13. Once this is done, using the 1/2" x 5" bolt and lock nut attach the idler tensioner to the end of the idler. ***Note the orientation of the hardware, the bolt needs to face the direction shown***



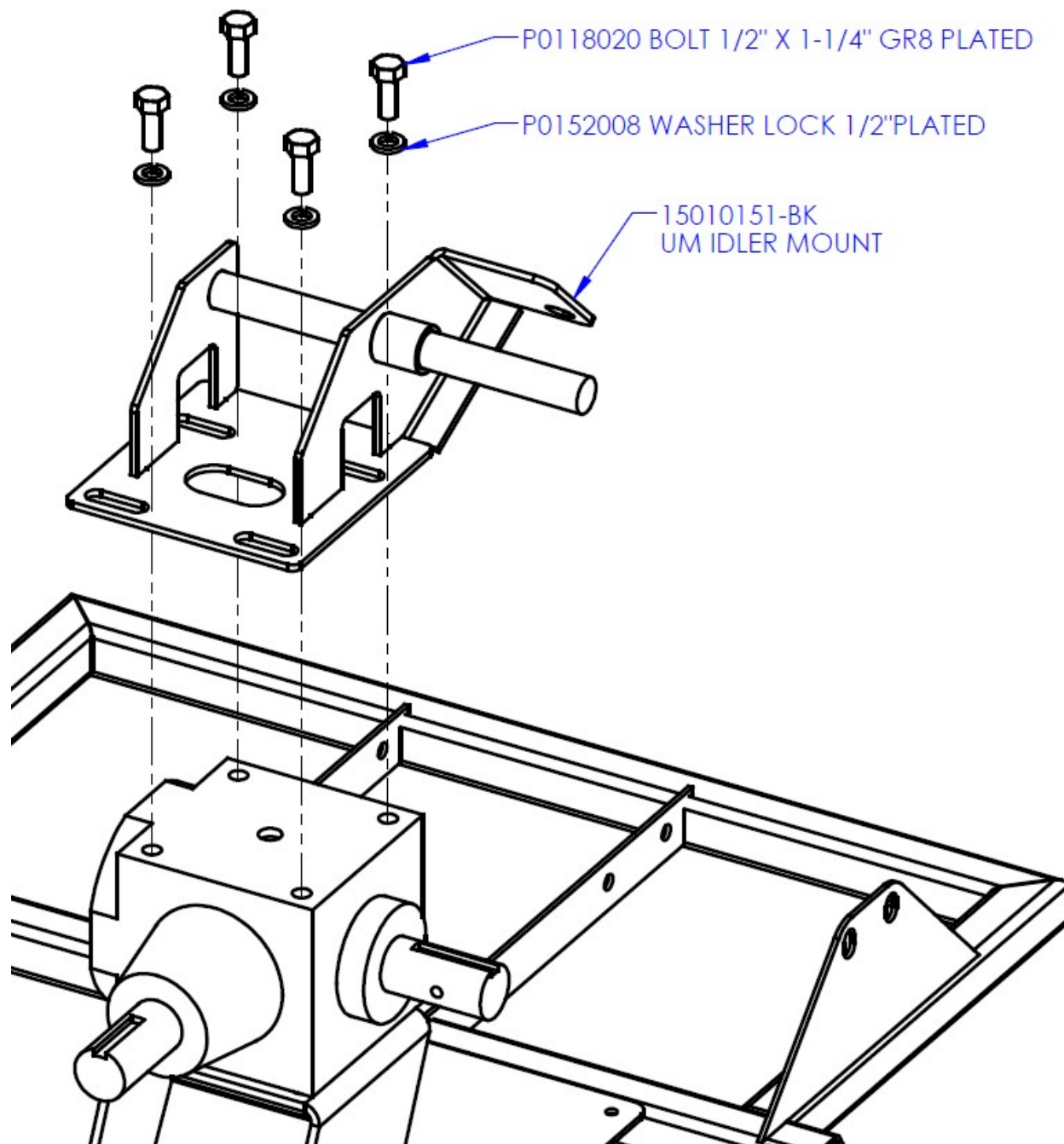
14. You will need to assemble the tensioner. Slide the idler spring gauge (P11151168-BK), the compression spring (P02-202615), the ½" flat washer (P0151029) & thread the ½" nylock nut (P0134008) onto the tensioner shaft.



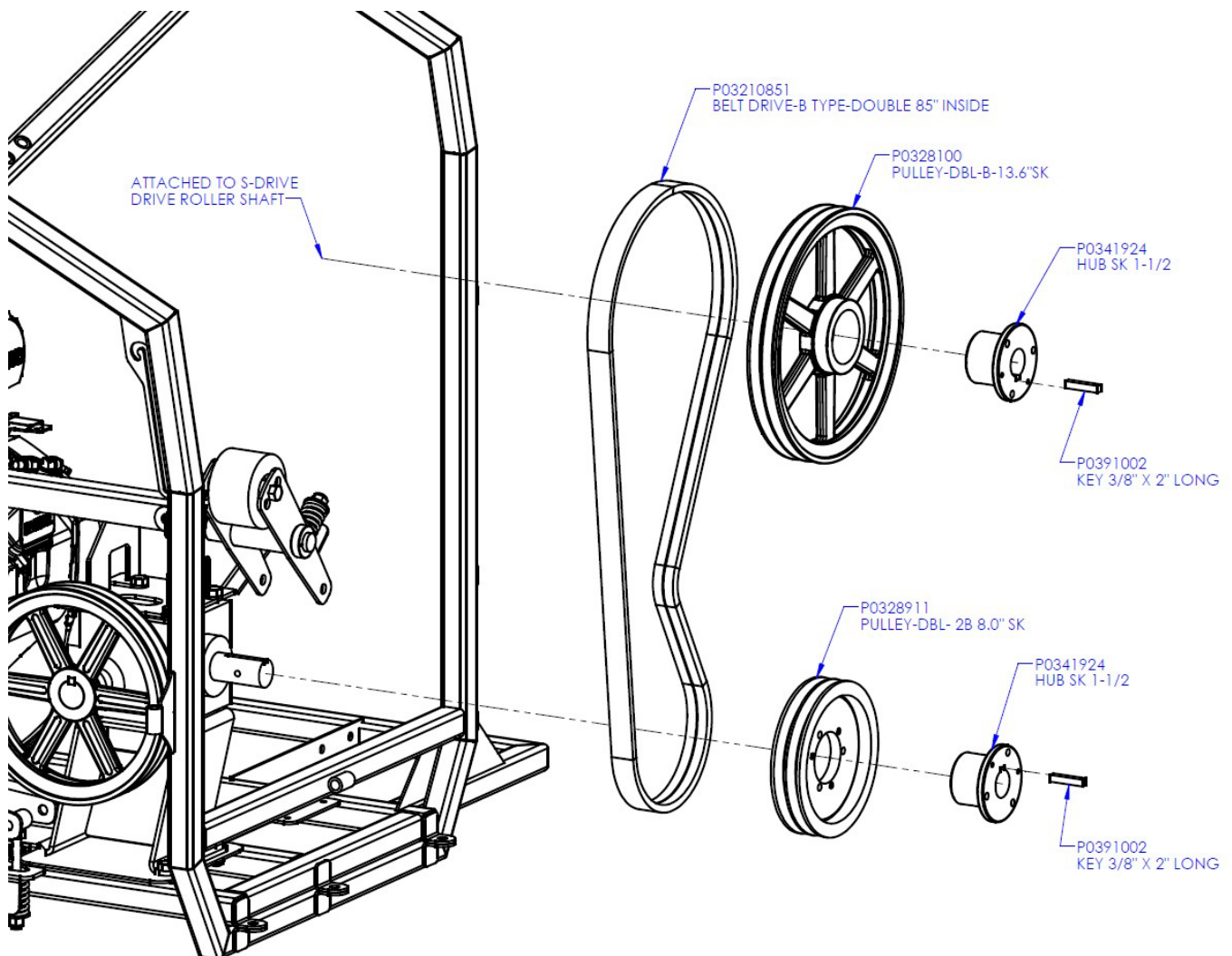
15. You must then tighten the ½" nylock nut until the spring is compressed to be flush with the idler spring gauge. This will set the tension of the idler.



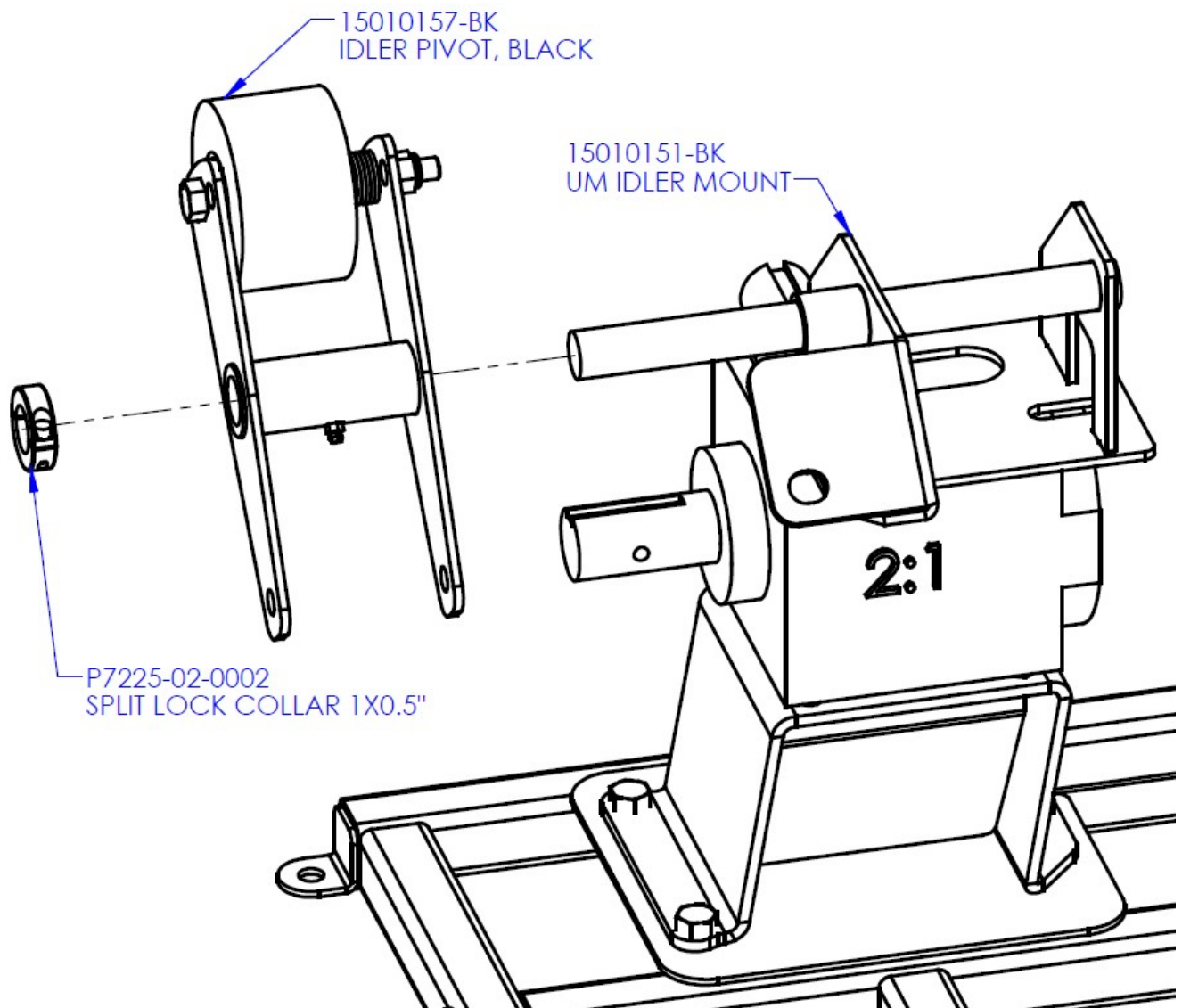
16. To install the new idler for the belt between the gearbox and the S-drive follow these instructions, first you must attach the base of the idler (15010151-BK) to the top of the gearbox using the ½" x 1-1/4" bolts (P0118020) and ½" lock washers (P0152008) that you saved from when you removed the old idler mount.



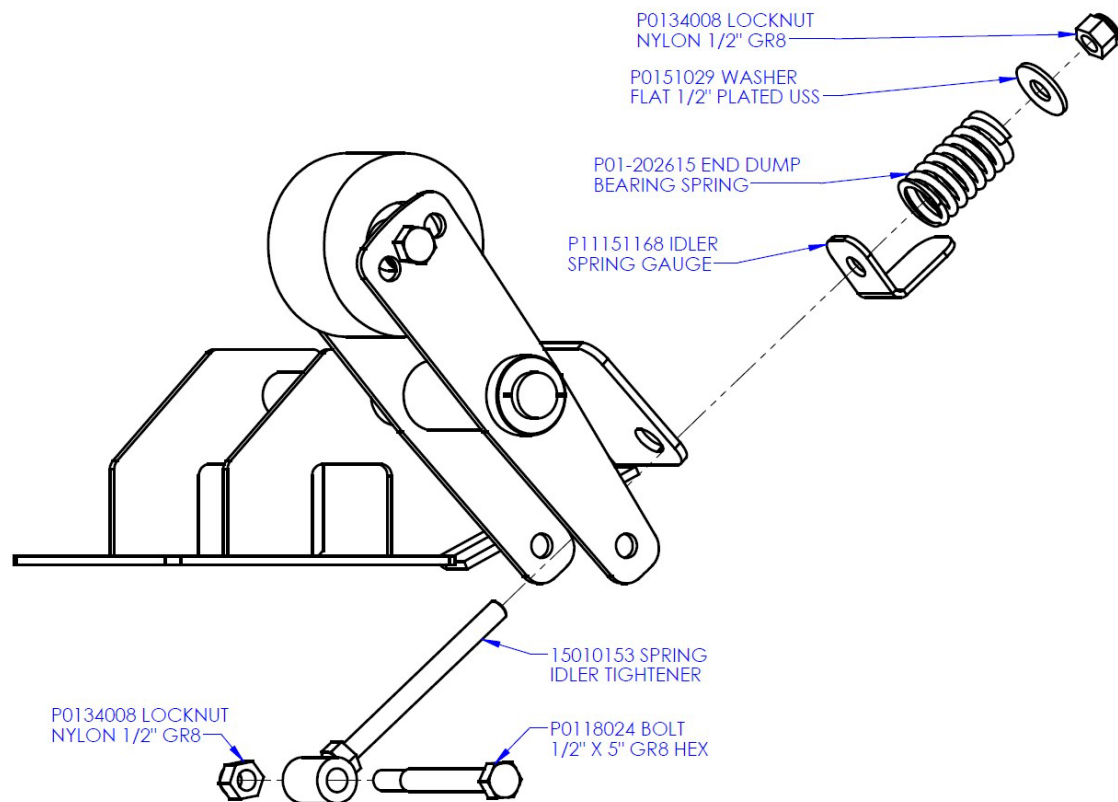
17. You will need to remove the belt (P03210851), pulleys and bushings connecting the Gearbox to the Drive Roller. Set aside the belt (P03210851) & the keys (P0391002) as these will be re-used.
18. Attach the pulley-DBL- 2B 8.0" SK (P0328911) to the gearbox shaft using the Hub SK 1-1/2" split tapered bushing (P0341924) and the 1/2" x 2 key (P0391002).
19. Attach the pulley-DBL-B-13.6"SK (P0328100) to the S-drive drive roller shaft using the Hub SK 1-1/2" split taper bushing (P0341914) and the 1/2" x 2 key (P0391002).
20. Once the pulleys are attached, use a straight edge to check that they are aligned. Loosen the bolts on bushings and adjust if necessary. When finished, ensure the bushing bolts are torqued to 180 in.lbs.



21. Slide the idler pivot (15010157-BK) onto the shaft of the mount (15010151-BK). Attach the split lock collar (P7225-02-0002) to the end of the shaft so the idler arm cannot slide off.



22. Slide the Spring idler tightener (15010153) through the hole in the idler base and then attach it the idler pivot using the ½" x 5 hex bolt (P0118024) & the ½" nylock nut (P0134008).
23. Assemble onto the end of the spring idler tightener the idler spring gauge (P11151168), end dump bearing spring (P01-202615), ½" lock washer (P0151029) and then thread on the ½" nylon lock nut (P0134008).
24. Apply grease to the zerk until grease starts to come out both sides. Rotate the idler as much as possible to get the grease all the way around the shaft.

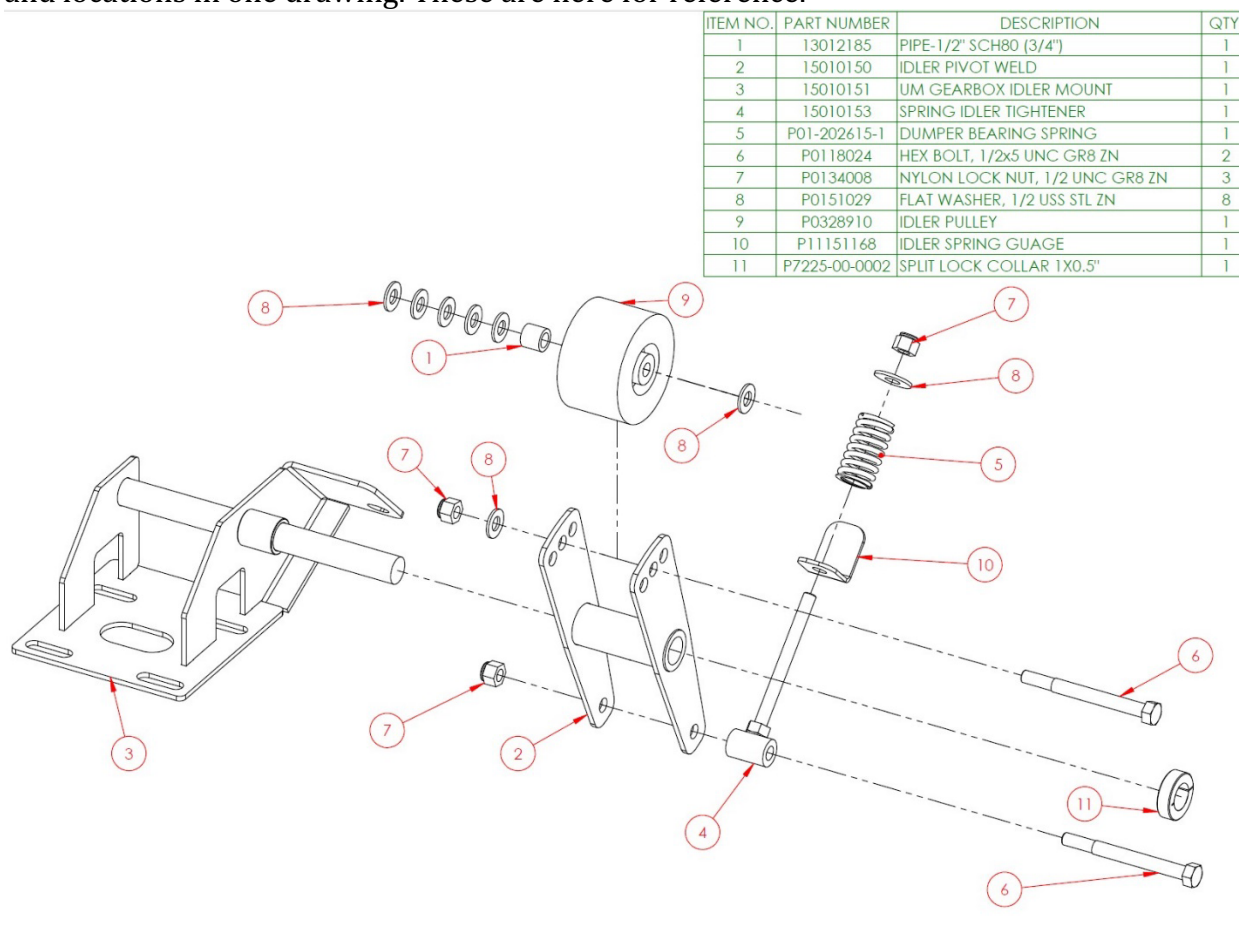


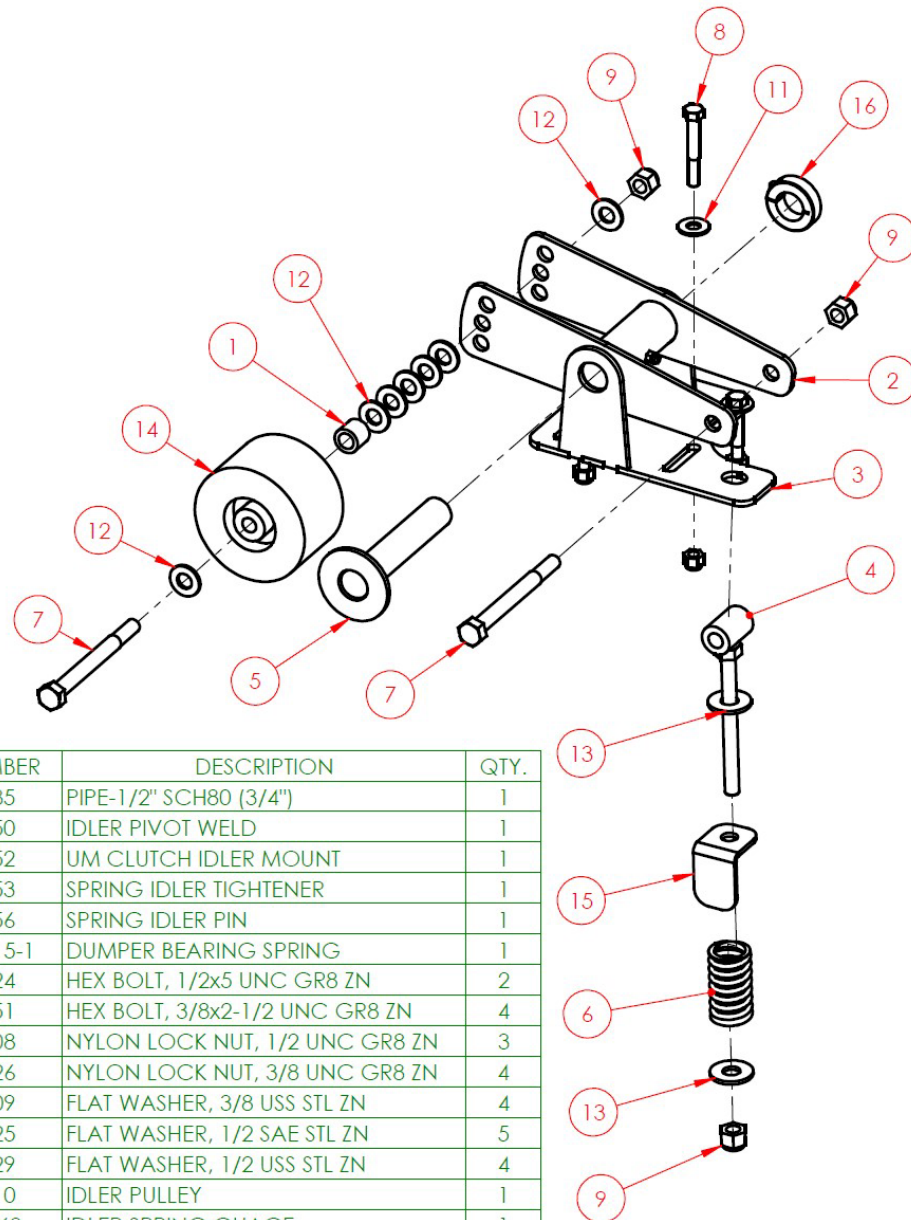
25. Tighten down the ½" nylock nut (P0134008) until the spring is compressed and flush with the edge of the idler spring gauge.



26. Now that the idlers have been installed and the pulleys replaced, do a final check to ensure all hardware is tightened and belts are aligned and under tension.
27. Test run your machine starting slowly to ensure the belts are tracking properly in the center of the pulleys.

***NOTE: below are exploded drawings of the idler systems as a whole, showing all parts and locations in one drawing. These are here for reference.





ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	13012185	PIPE-1/2" SCH80 (3/4")	1
2	15010150	IDLER PIVOT WELD	1
3	15010152	UM CLUTCH IDLER MOUNT	1
4	15010153	SPRING IDLER TIGHTENER	1
5	15010156	SPRING IDLER PIN	1
6	P01-202615-1	DUMPER BEARING SPRING	1
7	P0118024	HEX BOLT, 1/2x5 UNC GR8 ZN	2
8	P0118051	HEX BOLT, 3/8x2-1/2 UNC GR8 ZN	4
9	P0134008	NYLON LOCK NUT, 1/2 UNC GR8 ZN	3
10	P0134026	NYLON LOCK NUT, 3/8 UNC GR8 ZN	4
11	P0151009	FLAT WASHER, 3/8 USS STL ZN	4
12	P0151025	FLAT WASHER, 1/2 SAE STL ZN	5
13	P0151029	FLAT WASHER, 1/2 USS STL ZN	4
14	P0328910	IDLER PULLEY	1
15	P11151168	IDLER SPRING GUAGE	1
16	P7225-00-0002	SPLIT LOCK COLLAR 1X0.5"	1