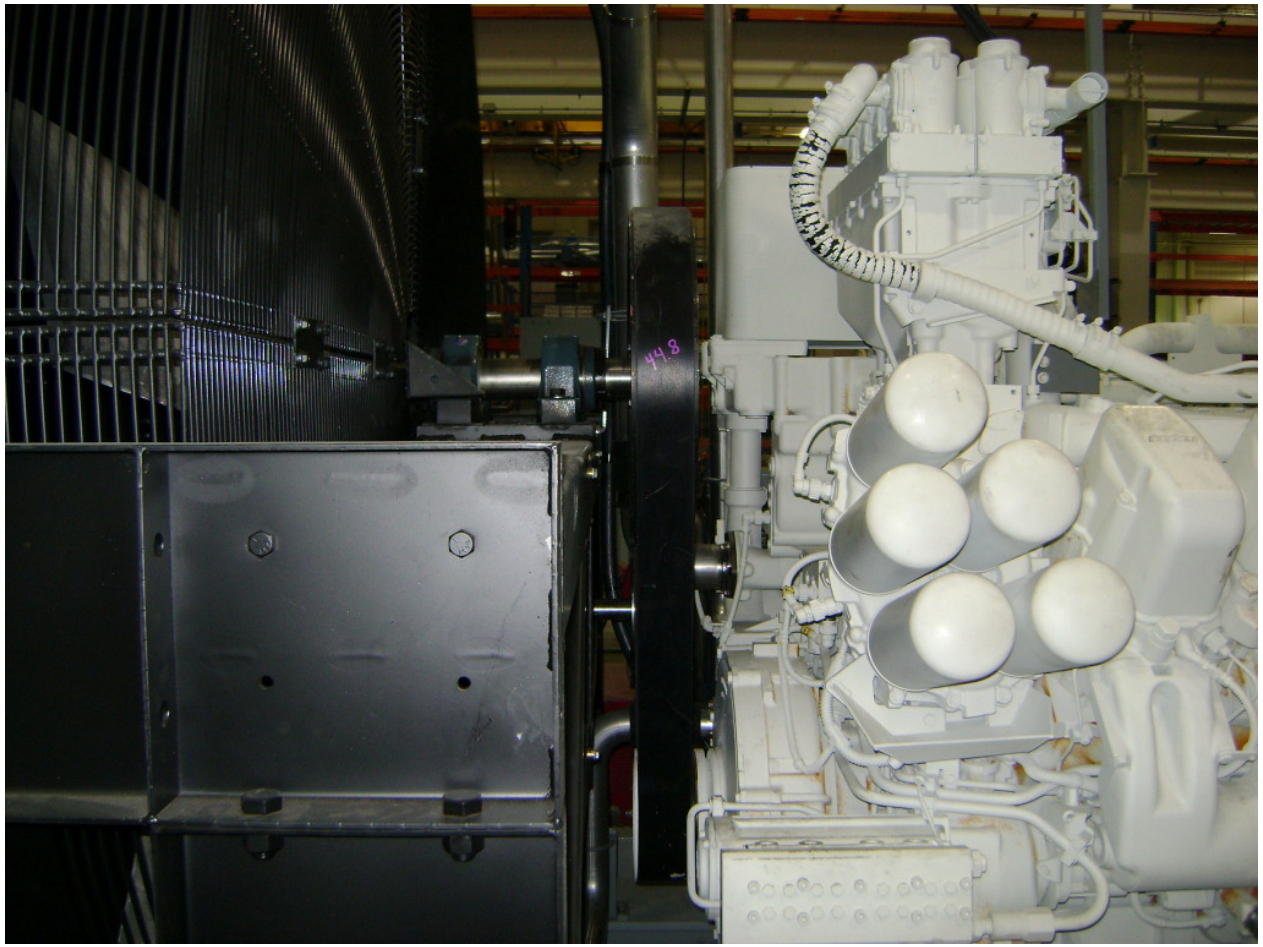
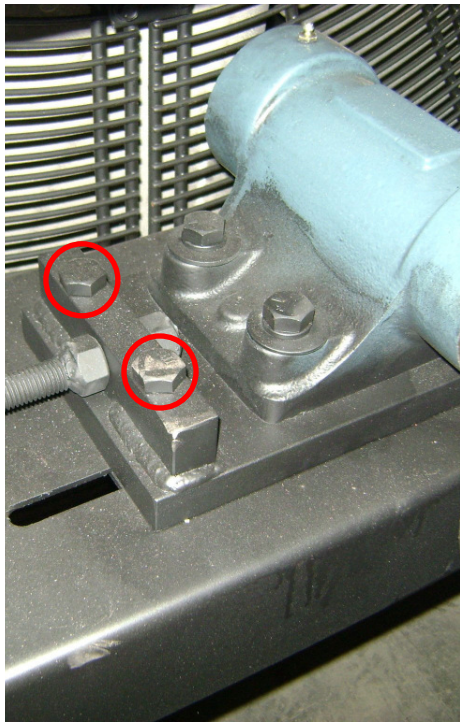
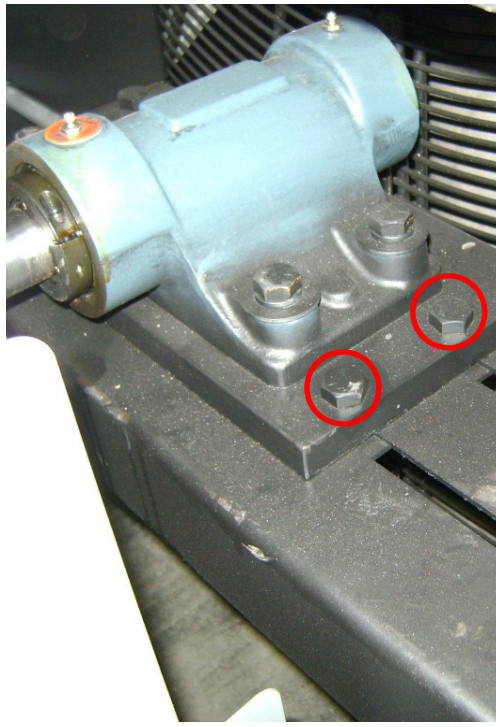
Indirect Drive Radiator Drive Belt & Idler Installation

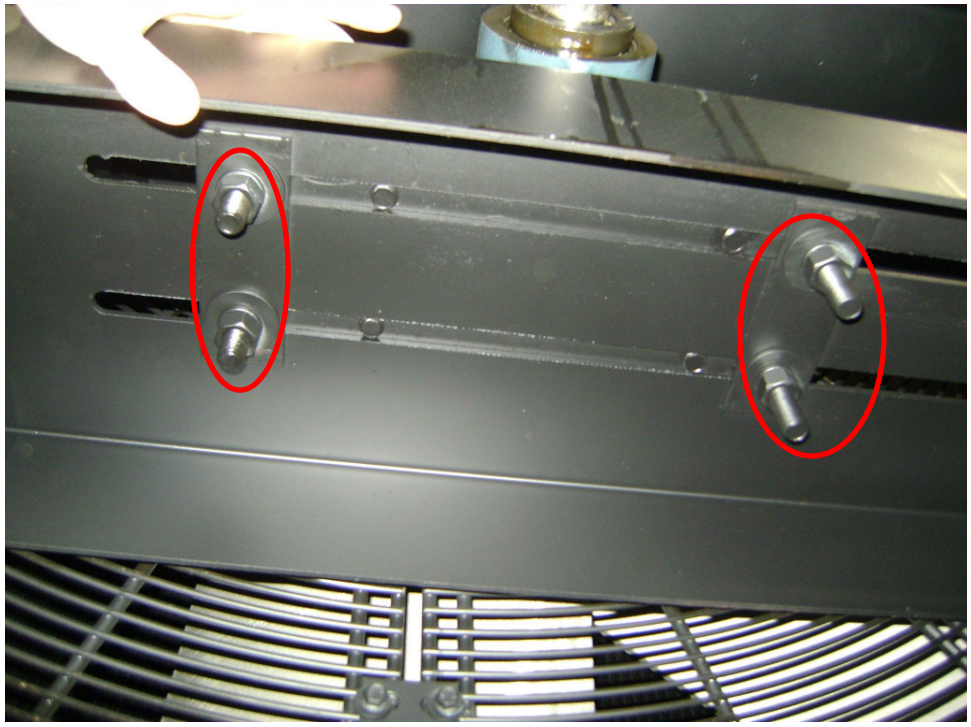


General Notes

- Arrow below denotes part in reference to table! (Red) →
- Part quantities are called out in table per picture!
- Letter used to call out part in reference to corresponding table! **A**
- Letter sequence starts over at the beginning of every page.
- This eye symbol is an alert to take specific notice of a critical instruction (i.e. engine fan orientation, special orientation of ball valves, etc…)
- This torque symbol is an alert to tighten hardware (i.e. nuts, bolts, clamps, etc…) to a specified torque value and paint mark after final torque has been applied.
- If **torque** is specified apply paint mark.







Belt & Idler Installation Lower Pillow Block				
P/N	Description	QTY	Letter	Torque

Belt & Idler Installation Lower Pillow Block				
P/N	Description	QTY	Letter	Torque

Steps:

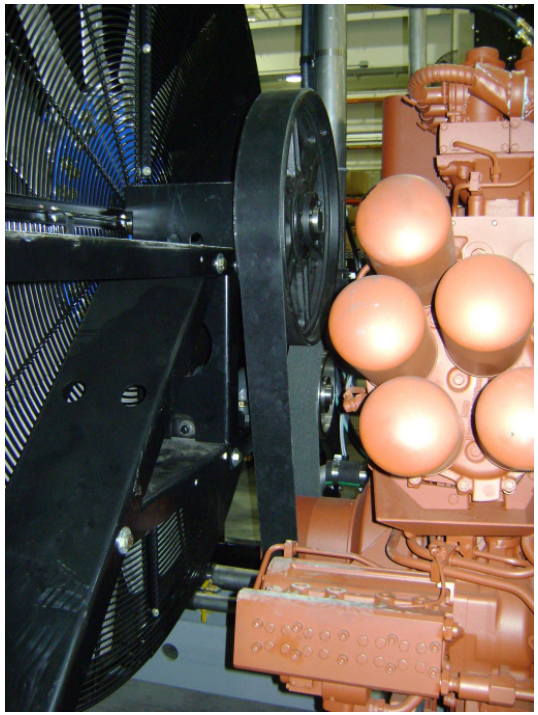
1. Loosen the lower pillow block slide mounting bolts.

Tools Needed:

- 1/2” Impact
- 1/2” Dr 15/16” Socket

Tools Needed:

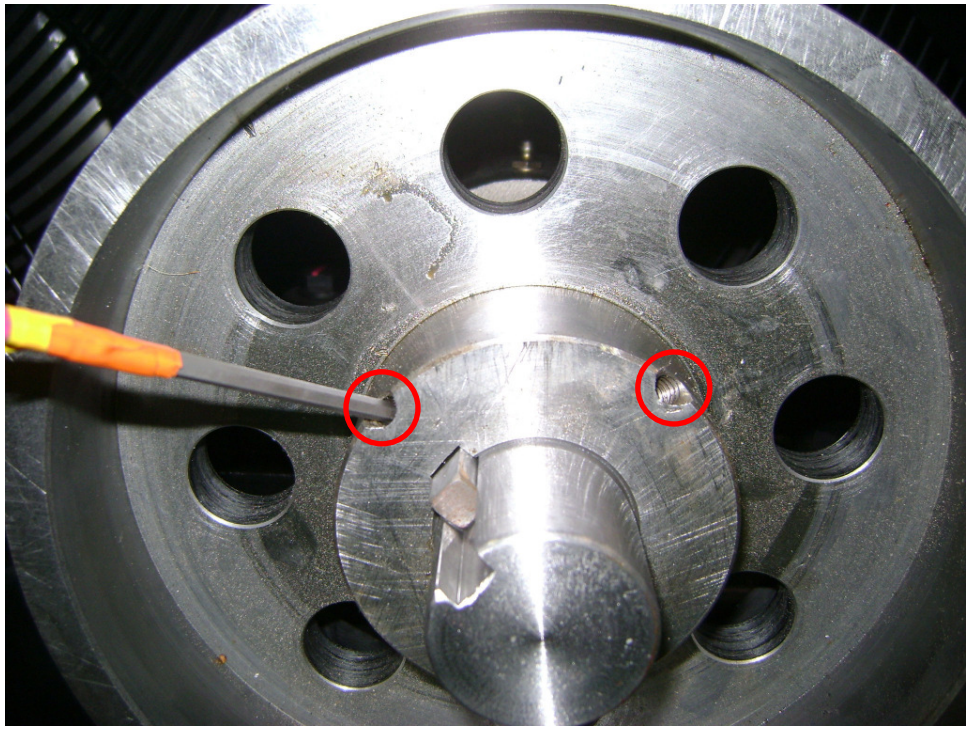
- 15/16” Combination Wrench



Belt & Idler Installation Front of Engine				
P/N	Description	QTY	Letter	Torque

Steps:

2. Verify v-groove belt to job traveler.
3. Install belt to poly sheave and engine crank pulley starting at the grooves closest to the radiator.
4. Center idler pulley to drive belt.



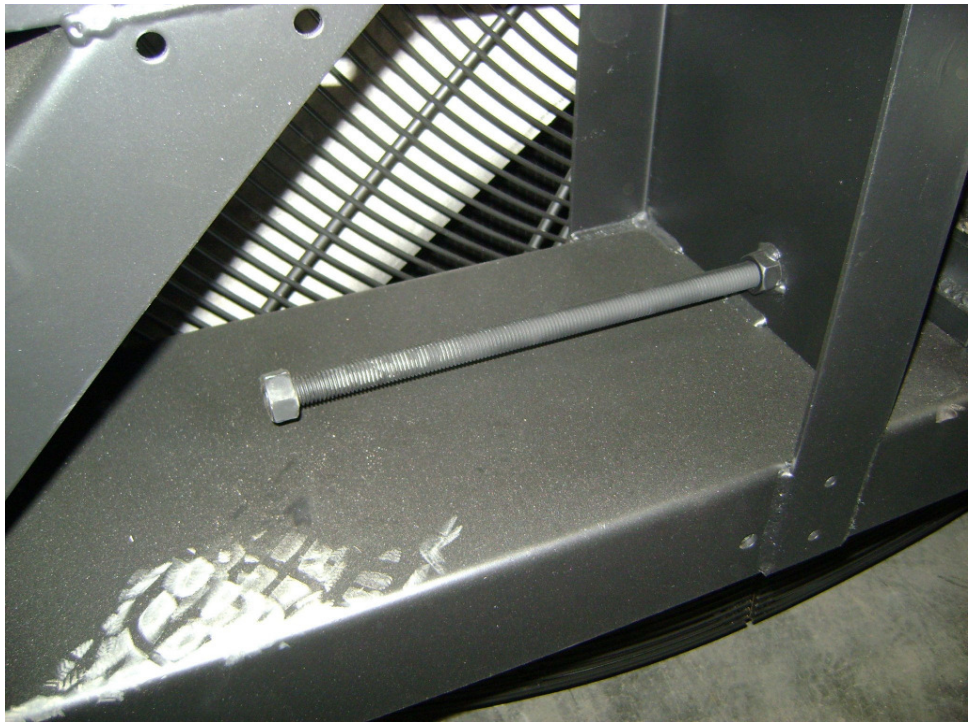
Belt & Idler Installation Idler				
P/N	Description	QTY	Letter	Torque

Steps:

5. Tighten key stock set screws to keep the idler key stock in place.
6. Tighten the idler set screws to keep the idler in place.

Tools Needed:

- 3/8” Dr Ratchet
- 3/8” Dr 5/32” Allen Hex Socket



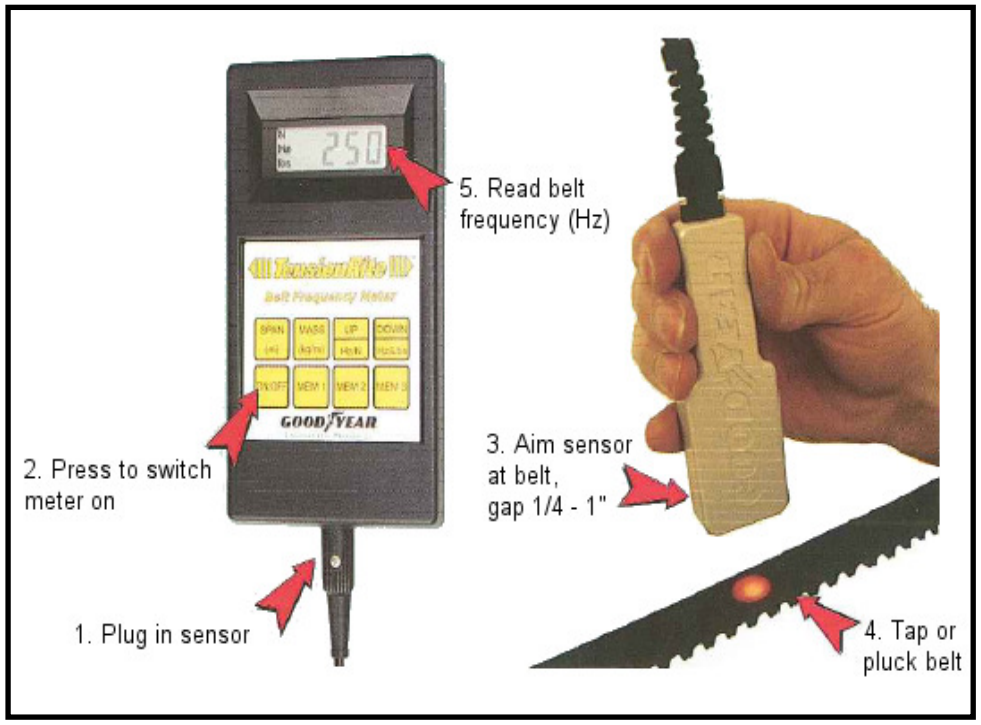
Belt & Idler Installation Lateral Adjustment Screw				
P/N	Description	QTY	Letter	Torque

Steps:

7. Use the lateral adjustment screw to either loosen or tighten the tension of the idler on the drive belt.

Tools Needed:

- 1/2” Impact
- 1/2” Dr 15/16” Socket (**GTI Rad.**)
- 1/2” Dr 1-1/8” Socket (**DR Rad.**)



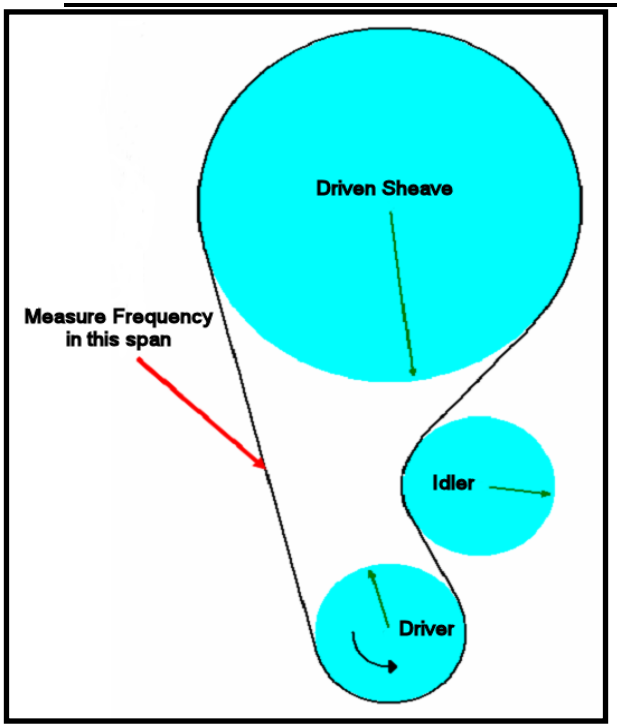
Belt & Idler Installation Belt Frequency				
P/N	Description	QTY	Letter	Torque

Steps:

8. Use the Good Year Tension Rite tool to obtain the correct belt frequency.

Tools Needed:

- Good Year Tension Rite (**GY-TR10400**)



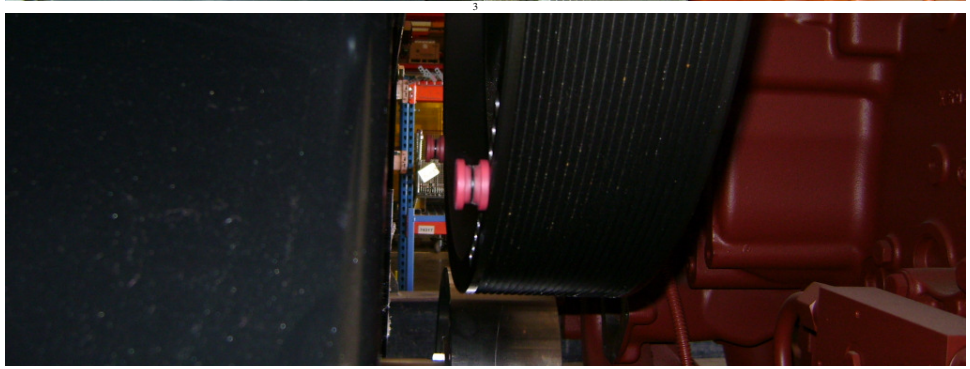
Belt & Idler Installation Belt Frequency				
P/N	Description	QTY	Letter	Torque

Steps:

9. Turn on Good Year Freq. Meter.
10. Attach the sensor to the meter.
11. Aim sensor at belt location shown in the diagram above and pluck or tap the belt.
12. The meter will register the frequency in hertz; see the chart on **Pg. 6** to determine the belt frequency required for the poly sheave, idler pulley and drive belt combination installed on gen set.
13. See job traveler to obtain the correct part numbers of the poly sheave, belt and idler pulley.
14. If the frequency is low or high adjust idler tension according to **Step 7** until the correct frequency has been achieved.

Tools Needed:

- Good Year Tension Rite (**GY-TR10400**)



Belt & Idler Installation Alignment Pucks				
P/N	Description	QTY	Letter	Torque

Steps:

15. Insure that the DOT Line laser is still lined up with all “red” pucks on the poly sheave.
16. If out of alignment see Poly Sheave & Idler Alignment instructions.

Tools Needed:

- Ludeca DOT Line Laser Pucks (**L1000** or equivalent)

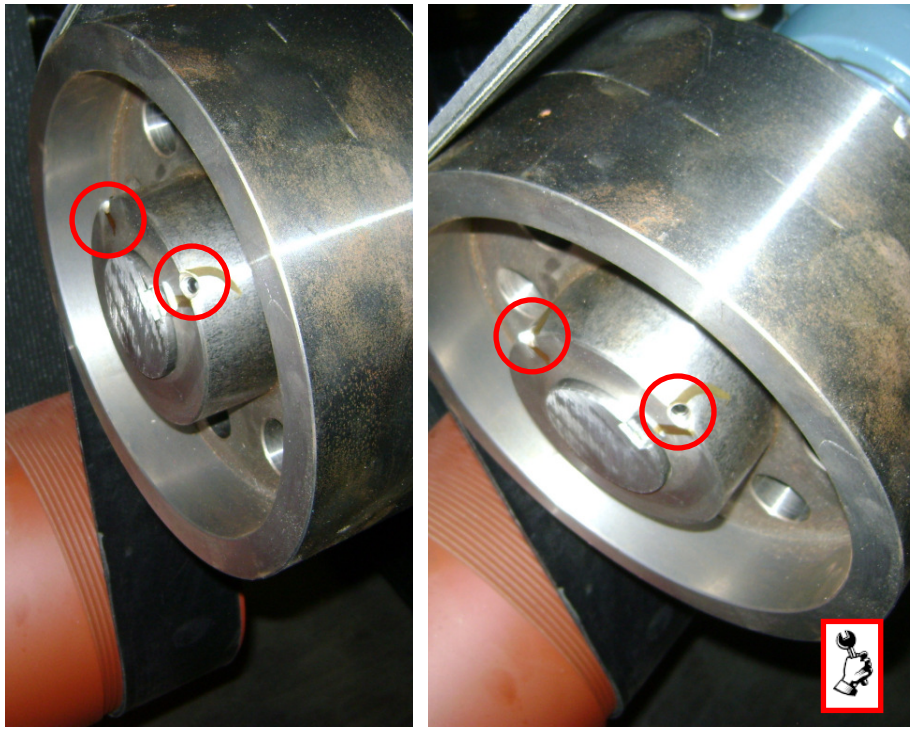
Belt P/N	MTUOE Belt P/N	Driver Pulley Dia (in)	Driven Pulley Dia (in)	Driven Pulley MTUOE P/N	Idler OD (in)	Idler MTUOE P/N	New Installation Frequency (Hz)		Used Installation Frequency (Hz)	
							Low Spec	High Spec	Low Spec	High Spec
990L20	85557	9.40	20.00	72469	5.00	72466 / 72942 / 74715	57.4	70.2	52.4	64.1
990L20	85557	9.40	20.00	72469	9.50	71423 / 85556	57.4	70.2	52.4	64.1
1065L20	72471	9.40	18.00	74320	5.00	72466 / 72942 / 74715	46.0	56.3	42.0	51.4
1065L20	72471	9.40	20.00	72469	9.50	71423 / 85556	50.2	61.4	45.9	56.0
1065L20	72471	9.40	20.00	72469	5.00	72466 / 72942 / 74715	49.9	61.0	45.5	55.7
1065L20	72471	9.40	24.00	72441	5.00	72466 / 72942 / 74715	60.5	73.9	55.2	67.5
1080L20	81747	9.40	20.00	72469	5.00	72466 / 72942 / 74715	48.5	59.3	44.3	54.2
1080L20	81747	9.40	24.00	72441	9.50	71423 / 85556	58.2	71.2	53.2	65.0
1120L20	73366	9.40	20.00	72469	5.00	72466 / 72942 / 74715	45.4	55.5	41.5	50.7
1150L20	72488	9.40	18.00	74320	5.00	72466 / 72942 / 74715	40.5	49.5	36.9	45.2
1150L20	72488	9.40	24.00	72441	9.50	71423 / 85556	49.6	60.7	45.3	55.4
1215L20	72776	9.40	24.00	72441	9.50	71423 / 85556	44.7	54.6	40.8	49.9
1310L20	72581	9.40	20.00	72469	5.00	72466 / 72942 / 74715	34.7	42.4	31.6	38.7
1310L20	72581	9.40	24.00	72441	9.50	71423 / 85556	38.7	47.3	35.3	43.2
1310L20	72581	9.40	30.00	72470	9.50	71423 / 85556	48.3	59.0	44.1	53.9

Belt & Idler Installation Drive Belt				
P/N	Description	QTY	Letter	Torque

Steps:

17. If the DOT Line laser is inline with “red” pucks then mark the frequency measured on the drive belt and initial.

18. If out of alignment see Poly Sheave & Idler Alignment instructions.



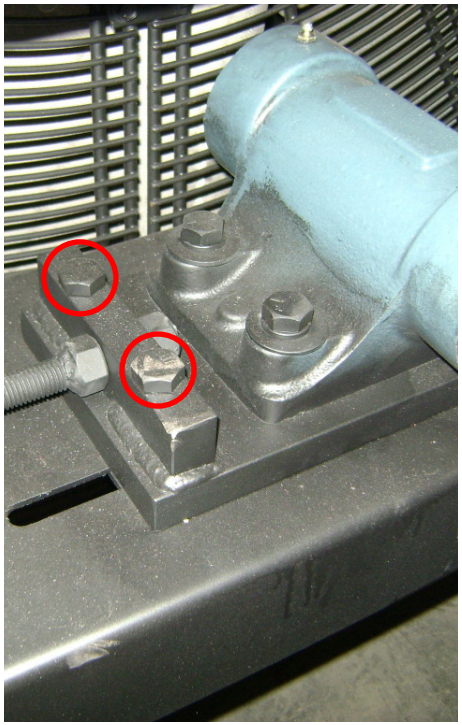
Belt & Idler Installation Idler				
P/N	Description	QTY	Letter	Torque

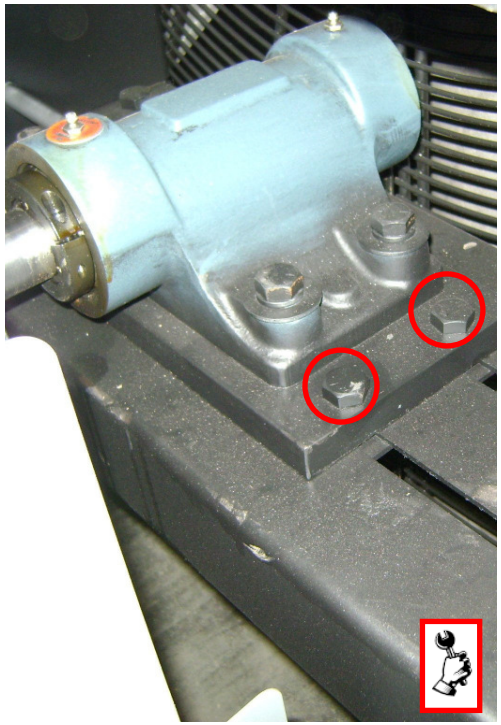
Steps:

19. Torque **all** 4 idler pulley set screws to **13 ft lbs**.

Tools Needed:

- 3/8” Dr Torque Wrench
- 3/8” Dr 5/32” Allen Hex Socket





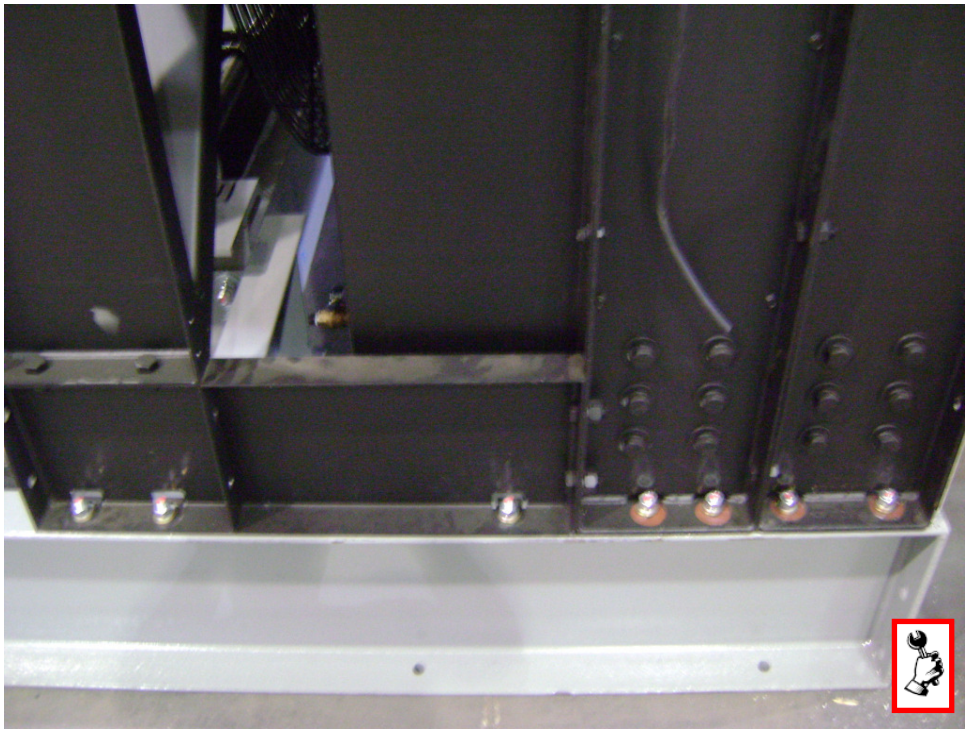
Belt & Idler Installation Lower Pillow Block				
P/N	Description	QTY	Letter	Torque

Steps:

20. Tighten the pillow block slide mounting bolts to the appropriate torque spec per hardware being used.

Tools Needed:

- 1/2” Dr Torque Wrench
- 1/2” Impact
- 1/2” Drive 15/16” Socket
- 15/16” Combination Wrench



Belt & Idler Installation Radiator Mounting Feet				
P/N	Description	QTY	Letter	Torque

Steps:

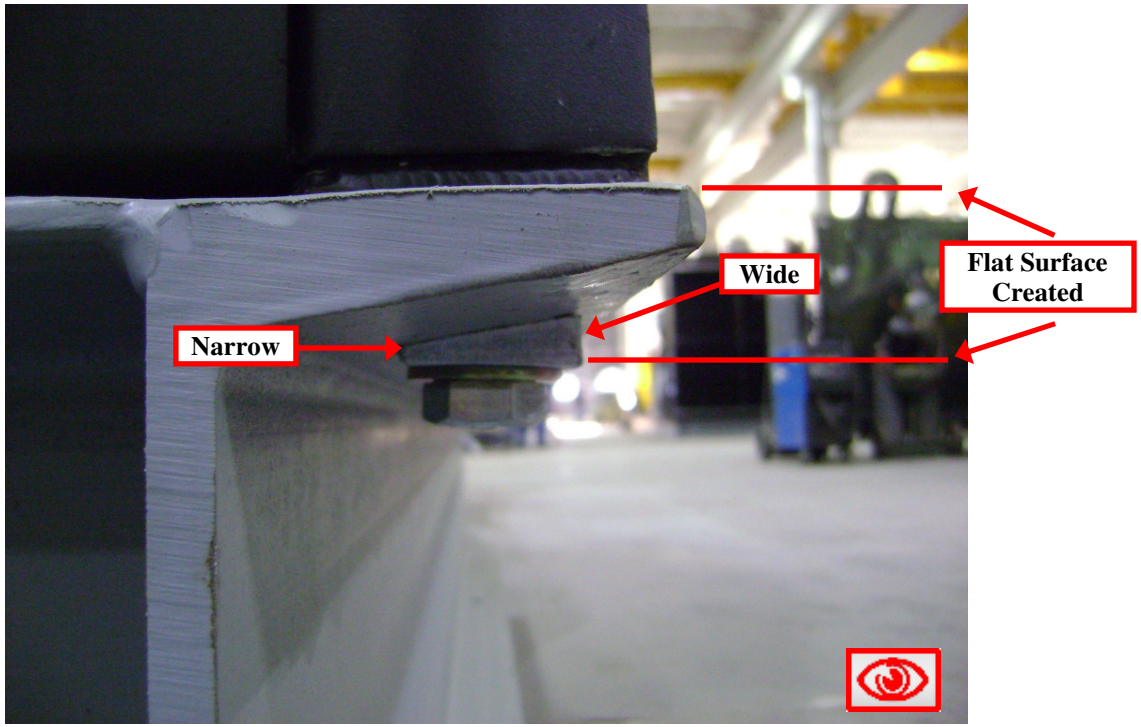
21. Tighten all radiator feet mounting hardware to **135 ft lbs** (if GR5 is used) that are installed on the left and right side of the radiator.

22. If a higher grade of hardware is installed due to customer or unit need then see the approved Fastener Torque Spec chart.

23. If bevel mall washers are installed see **Pg. 9** for correct orientation of the bevel mall washer.

Tools Needed:

- 1/2” Dr Torque Wrench
- 1/2” Impact
- 1/2” Drive 15/16” Socket
- 15/16” Combination Wrench



Belt & Idler Installation Bevel Mall Orientation				
P/N	Description	QTY	Letter	Torque

Steps:

24. When installing bevel malls make sure to put the wider side facing away from the base.

25. If the bevel mall is installed backwards an improper joint is created and assembly is either unachievable or has increased difficulty.

26. By installing the bevel mall correctly a flat surface is achieved to accommodate a proper joint between the base and radiator.

Model Change Records

Date: 11-11-2010
Change: Assembly document created.

Job Traveler: N/A
By Who: Chris Vermillion Approved: Chad Massman

Date:
Change:

Job Traveler:
By Who: Approved:

Date:
Change:

Job Traveler:
By Who: Approved:

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By Who: Approved:

Quality Management System

Training Sign In Form

Course Name:	
Instructor(s):	
Date(s) of Training:	
Duration:	

	Name	Signature	Date
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