

This is a case study using a belt conveyor as an example to show how a supervisor can identify skill gaps which is decreasing equipment performance.

This is a belt conveyor which delivers coal to a fully utilized coal fired electrical generator. When the belt is schedule to operate and stops, the unit loses \$5000.00/ hr. With 12 hours notice, the belt can be shutdown for 2 hours without a lost in generation capacity. Anything over 2 hrs will result in a \$5000/hr lost. Maintenance labor is \$40/hr and the material cost is shown as cost charge to the work order.

Review the information from the CMMS and list Four technical skills required to properly troubleshoot the root causes and increase profits.

The room will discuss the observations and conclusions.

Date	WO No.	Equipment #	WO Type	Failure Code	Repair Code	Downtime (hrs)	Labor (hrs)	Material (\$)	Total Cost (\$)
1/7/2006	12351	BC 03-56-21	EWO	Belt not tracking	Build -up on rollers	1.5	3	0	7620
1/8/2006	12396	BC 03-56-21	EWO	Belt Shutdown (zero speed sensor)	Increased Drive Belt Tension	1	2	0	5080
1/10/2006	12456	BC 03-56-21	CM	Belt Splice Failure	Cut Belt and Respliced	2	4	50	10210
1/15/2006	12661	BC 03-56-21	EWO	Belt not tracking	Adjusted Drive Roller	1	2	0	5080
1/16/2006	12715	BC 03-56-21	EWO	Belt not Tracking	Belts rubbing, Build -up on roller	1.5	3	0	7620
1/18/2006	12996	BC 03-56-21	CM	Belt splice Failure	Replaced belt and splice	3	18	2500	8220
2/24/2006	13193	BC 03-56-21	EWO	Motor Kicked out	Reset	0.5	1	0	2540
2/25/2006	13245	BC 03-56-21	EWO	Motor Kicked out	Cleaned build up on roller	1.5	3	0	7620
2/26/2006	13285	BC 03-56-21	EWO	Motor Kicked out	Reset and Checked for loose wires	1	2	0	5080
2/27/2006	13409	BC 03-56-21	CM	Replace Motor	Bearing Bad, Lack of Grease	2	4	500	660
3/18/2006	13745	BC 03-56-21	EWO	Belt Shutdown (zero speed sensor)	Replaced drive belts	1	2	26	5106
Total Loss:									64836

	1 Belt Tracking and Splicing	2 Lubrication practices	3 Cleaning Procedures	3 Motor operation and Troubleshooting	4 Bearing Maintenance and Troubleshooting	5 Follow up work order requirements for Emergency work and PM.	What technical training could of reduced the loss too:	
Technical Skills Gap (4) +1								29226
Potential Savings if Done Right the First Time								35610

Answer Belt tracking
Proper Splicing Methods
Lubrication
Motor troubleshooting - Amp draw
Bearing Troubleshooting