

Belt Conveyor Preventative Maintenance



SAFETY CONCERNS

Always inspect work area for hazards prior to commencement of inspections or performing work.



LOCATION	PROCEDURE: Weekly	LOCATION	PROCEDURE: Weekly
Bend Pulleys	Ensure belt is centered on pulley	Head Pulley	Inspect belt cleaners for worn or missing blades
Carrying Idlers	Ensure all rolls are turning*		Inspect belt cleaners for cleanliness of frames and blades
	Ensure all idler rolls are free of material buildup*		Check belt-cleaner tension according to manufacturers' recommendation
	Ensure belt touches all three rolls both in loaded and unloaded states*		Ensure belt is centered on pulley
Conveyor Belting	Check for belt damage or abuse:		Check dust-suppression nozzles for pluggage
	Check belt for belt cupping	Loading Zone	Inspect impact idlers for wear
	Check belt for belt camber		Inspect impact bars for top cover wear
	Check for impact damage		Inspect seal-support cradles for wear
	Check for impingement damage		Inspect and adjust dust seals
	Check for chemical damage		Inspect dust-suppression nozzles*
	Check belt for rips or tears	Return Rolls	Ensure rolls are turning freely
	Check belt for junction-joint failure		Inspect rolls for material buildup
Conveyor Drive	Check belt for top cover cracking		Inspect mounting brackets for wear from belt-tracking problems
	Check reducer oil level	Safety Switches	Inspect cables for correct tension
	Check reducer for oil leaks		Ensure flags are free from material buildup
	Inspect drive coupling	Snub Pulley	Ensure belt is centered on pulley
	Check oil level in backstop and inspect for leaks		Inspect pulley for material buildup
Conveyor Structure	Ensure all safety guards for drive are in place and in good condition	Splices	Mechanical: Check splice and pins for wear
	Check for rusted, bent, broken, or missing structural parts		Vulcanized: Check splice for separation
	Check hand rails and toe plates to ensure good condition	Tail Pulley	Ensure belt is centered on pulley
	Check walkways for material spillage or buildup		Check V-plow blade for wear
Gravity Take-Up	Check safety gates to ensure good working order		Check V-plow mounting
	Check take-up carriage for free and straight operation*		Check V-plow tension
	Ensure belt is centered on pulley*	Tracking Idlers	Check for free pivoting of frame*
Guards	Ensure all safety guards are in place and in good condition		Ensure all rolls are turning*
	Check for damage and proper installation.		Check rolls for material buildup

*** NOTE: Starred inspections may require the belt to be running.**

Always inspect work area and review job procedure for hazards prior to commencement of inspection or performing work. Review local and company safety requirements before conducting any maintenance activities. Some facilities may allow certain specified inspection and/or maintenance activities to be performed on moving conveyors by appropriately-certified and -trained technicians. For those procedures that cannot be safely performed while the belt is in operation and/or those facilities that do not allow maintenance while the belt is in operation, Lockout / Tagout / Blockout / Testout procedures must be followed prior to performing any work.

Belt Conveyor Preventative Maintenance



SAFETY CONCERNS

Always inspect work area for hazards prior to commencement of inspections or performing work.



LOCATION	PROCEDURE: Monthly	LOCATION	PROCEDURE: Monthly
Bend Pulleys	Check bushings for evidence of movement on shaft	Carrying Idlers	Check lubrication of bearings in rolls
	Check bearing condition and locking collars for tightness	Conveyor Drive	Check lubrication in backstop bearings
	Check for cracks and wear at face and hub ends		Check lubrication in shaft bearings
	Check lubrication in shaft bearings		Inspect drive belts for wear and correct tension
Gravity Take-Up	Check bushing for evidence of movement on shaft	Loading Zone	Inspect chutes and chutewalls for leaks*
	Check bearing condition and locking collars for tightness		Inspect entry seals
	Check for cracks and wear at face and hub ends		Inspect exit seals
	Check lubrication in shaft bearings		Inspect dust-collection pickups for leaks*
Head Pulley	Check bushing for evidence of movement on shaft	Return Rolls	Check lubrication in bearings in rolls
	Check bearing condition and locking collars for tightness	Safety Horns	Test to ensure working properly prior to conveyor start
	Inspect pulley lagging for wear and secure to head pulley	Safety Switches	Emergency-stop switches should be tested in cooperation with management
	Check for cracks and wear at face and hub ends	Tracking Idlers	Check lubrication in rolls and pivot points
	Check lubrication in shaft bearings	LOCATIONS	PROCEDURE: Every 6 Months
Snub Pulley	Check bushing for evidence of movement on shaft	Brakes/Backstops	Test for proper operation under full load*
	Check bearing condition and locking collars for tightness	Conveyor Structure	Check foundations for settling
	Check for cracks and wear at face and hub ends	Loading Zone	Inspect wear liners for wear
	Check lubrication in shaft bearings	Safety Switches	Test operation for conveyor shutdown*
Tail Pulley	Check bushing for evidence of movement on shaft	Warning Devices/Signs	Test for operation and audible/visual or readable functionally*
	Adjust mechanical take-up for correct belt tension	LOCATION	PROCEDURE: Yearly
	Check for cracks and wear at face and hub ends	Electrical System	Check for open wiring, damaged conduit, overloading and system grounds
	Check lubrication in shaft bearings	Interlocks	Test to ensure proper interlocking of conveyors*
	Check lubrication in mechanical take-up adjusters	Safety Switches	Test conveyor start circuit with flags pulled
	Check bearing condition and locking collars for tightness	LOCATION	PROCEDURE: Special Circumstances
		Splices	After new splice: Check for crooked splice*

*** NOTE: Starred inspections may require the belt to be running.**

Note: In all cases, the manufacturers' recommendations for inspection and maintenance should be followed, including recommendations for lubrication. The above list covers most of the common components and systems found on most conveyors. Components and systems specific or unique to the conveyor being inspected should be added at an appropriate frequency. Examples are: scale, inspection doors, rip detection, belt cleaner(s), plow(s), flow aid(s), sampler, level detector(s), lighting, fire protection system, dust-control components and systems, lightning protection, general housekeeping, prohibited items, etc.