

QUARRY SAFETY WEEK 2022

TOOL BOX TALK SERIES

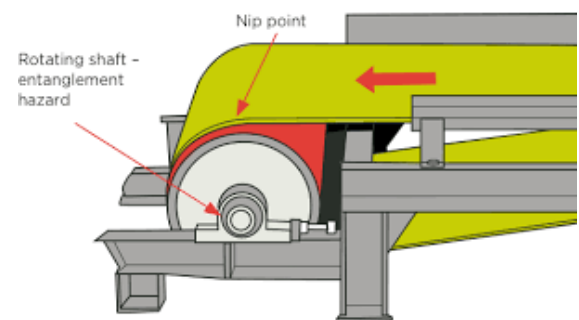


TOPIC: Conveyors & Guarding

THE HAZARDS

- Unexpected or accidental start-up of conveyor during maintenance or cleaning
- Entanglement in dangerous moving parts and nip points

ALL CONVEYOR NIP POINTS WITHIN REACH SUCH AS HEAD & TAIL DRUMS, RETURN ROLLERS, BOOT CHUTES AND DRIVE PULLEYS & CHAINS MUST BE ADEQUATELY AND SECURELY GUARDED TO PREVENT CONTACT AND THE RISK OF SERIOUS INJURY OR FATALITY



TYPES OF GUARDING

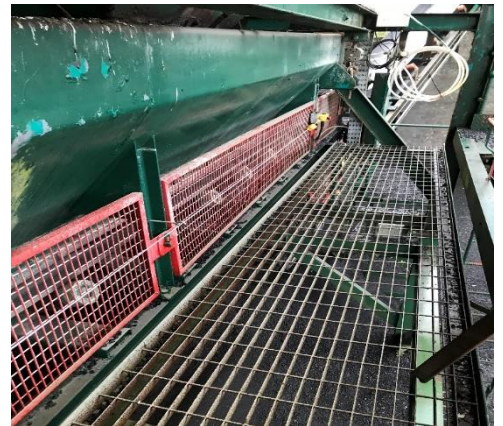
Close Fitting Guarding physically encloses the nip point. These must be held in place by fastenings which are padlocked in place or require the use of a tool to release them. The guard should be of robust construction with a mesh of sufficient size to prevent the accumulation of spillage within the guard and yet prevent finger or hand contact with the nip points within. Guards must not be secured in place using cable ties or wire.



Distance Guarding is a fence type construction which prevents access to the nip point/danger zone. These should be secured to a solid foundation or adjacent structure and equipped with a suitable interlocking device or lock to prevent access. Access gates or doors to the area should be locked securely at all times to prevent access unless the isolation procedure has been followed.



Skirting Guards In situations where fixed skirts (boot chutes) are fitted above conveyor rollers, a nip point exists between the idler and the belt. Guards must extend a safe distance beyond the outrunning nip point so as to prevent access.



RETURN ROLLERS

There are varying types of guards available to guard return roller nip points, these include:

- A suitable open mesh guard to totally enclose the roller.
- Plate type guards fitted along the full length of the roller nip point. Measures should also be taken to prevent access to the nip point from each side of the roller.



GRAVITY TAKE-UP UNITS

- Should be enclosed with mesh panels which prevent access to moving parts within the tower and protect against the risk of the gravity take-up weight falling to ground level in the event of the conveyor belt breaking.
- Guarding must also be provided along the conveyor walkway. Guards must extend a safe distance beyond the outrunning nip point so as to prevent access to the bend pulleys.

ISOLATION PROCEDURES

- Prior to removing any guard for maintenance or cleaning purposes, always ensure the power source is fully isolated and locked out to prevent the unexpected or accidental start-up of the conveyor. This includes any adjacent plant that may affect the works area or access/egress to/from the area.
- Always follow the Isolation Procedures for the plant or conveyor you are working on.
- Isolation and lock off should be considered from ALL forms of energy in static and mobile plant, i.e., stored, electrical, pneumatic, hydraulic, mechanical.



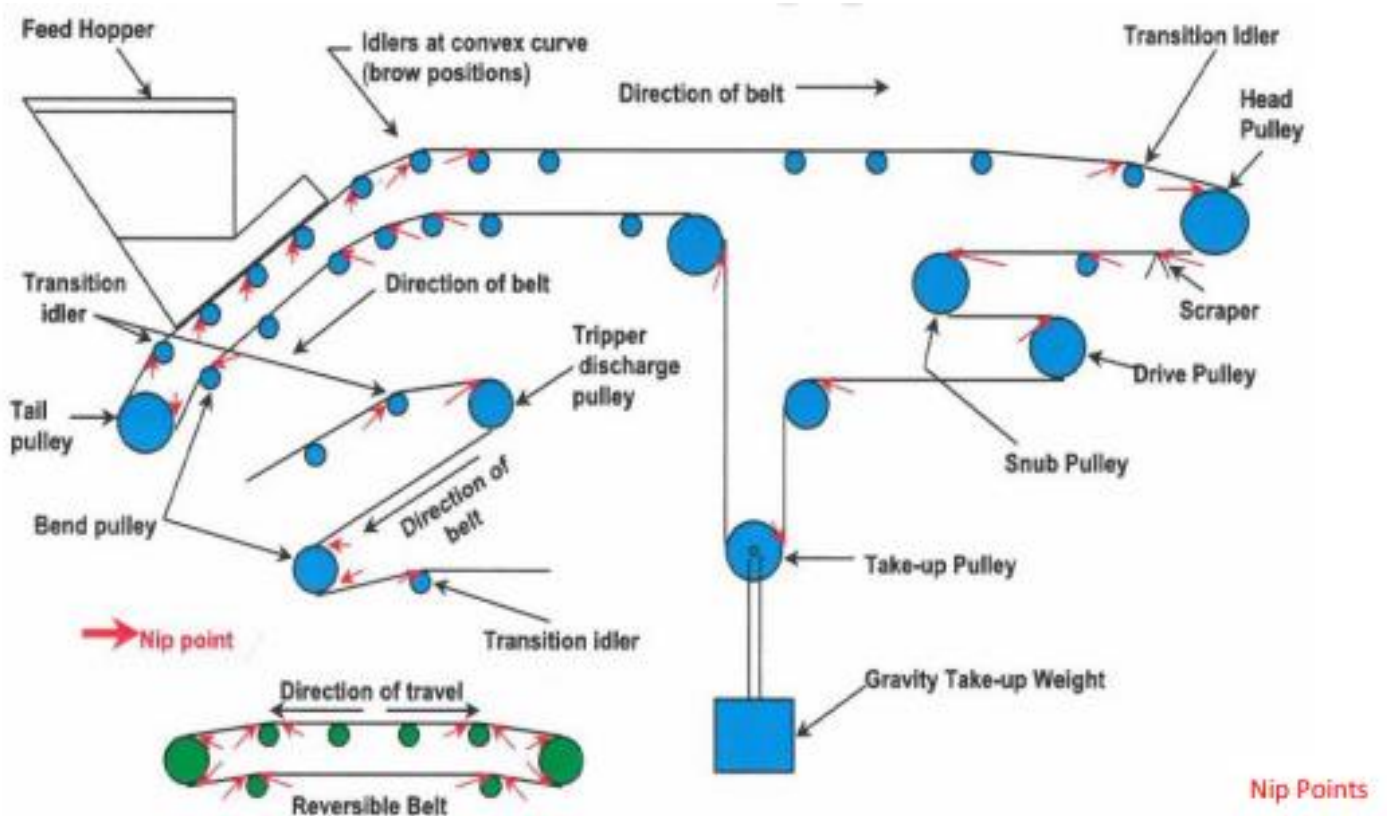
PULL CORDS & EMERGENCY STOPS

All conveyors should be fitted with emergency stop controls; these include Pullcords and/or Emergency Stop Buttons.

- Pullcords must be mounted using a position switch at either end or a position switch at one end and a tension spring at the other end.
- Pullcords must not be firmly anchored at either end as this will limit the effectiveness of the pullcord to work in both directions.
- Emergency Stop Buttons must be red, prominently marked and easily identified with a mushroom head latch in type or lock in type with manual reset;
- Emergency stops and pull cords should be tested on a monthly basis. A written record of the test and any repairs or adjustments required must be carried out immediately.

SAFE OPERATING PRACTICES

- Always make yourself familiar with and adhere to the Isolation Procedures and Risk Assessment control measures for the item of plant you are working on.
- Report any defective or missing guards to your supervisor immediately.
- Always replace guards when work is complete.



REMEMBER: DO NOT carry out "The Quick Job"
STOP & THINK - ALWAYS ISOLATE

Disclaimer: This Toolbox Talk has been prepared by Dynamic Safety Solutions Ltd. Clients are reminded of the requirement to have Safe Operating Procedures as per the relevant Health & Safety Regulations. Every care has been taken to ensure that the information contained herein is correct and accurate at the date of publication. However, Dynamic Safety Solutions cannot accept any responsibility or liability for any errors, inaccuracies or omissions which may have occurred inadvertently

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