Installation Instructions: K-Commander® Prime Tracker

Kinder Australia Product:	K-Commander® Prime Tracker
Product Category:	Conveyor Belt Tracking
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Revision:	0

⚠ WARNING ⚠

Always obey all applicable safety rules.
Be sure all power to the conveyor has been disconnected and isolated, and that controls are locked and tagged out.

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Conveyor Belt Tracker Installation Positioning

Correct installation of the any tracker is essential to ensure it not only works as intended, but also because poor tracker installation can exacerbate tracking issues instead of resolving them.

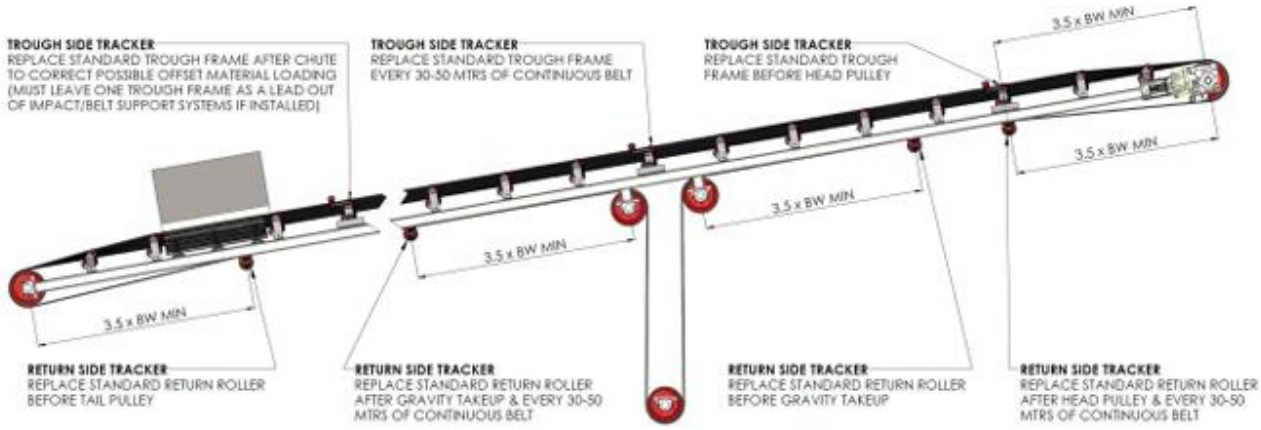
Placing tracking idlers in the correct locations will allow for the best overall tracking of the belt. Kinder recommends placing a tracker in the following locations:

• Prior to every pulley.

• After the head pulley (and drive pulley when these are separate instances)

• After the gravity take-up (or any other series of non-drive pulley, such as trippers) • After the loading point to counter the possibility of off-centre loading

• Every 30-50 metres of continuous belt



Ideally trackers should not be placed less than 3.5 x BW to the nearest pulley or within the transition area. This is due to the greater belt wrap of the pulley allowing it superior control over the belt, which the tracker must then overcome to be effective. This is heavily limited by the amount of friction the tracker can apply to direct the belt, which will generally never be enough to completely overcome the pulley, however, when installing at this distance is not an option, having a tracker two times the belt width from a pulley, for example, is better than not having one at all.

⚠ WARNING ⚠

The K-Commander® Prime Tracker should not be run at belt speeds exceeding 5m/s.

Operating the tracker above this limit may result in catastrophic failure.

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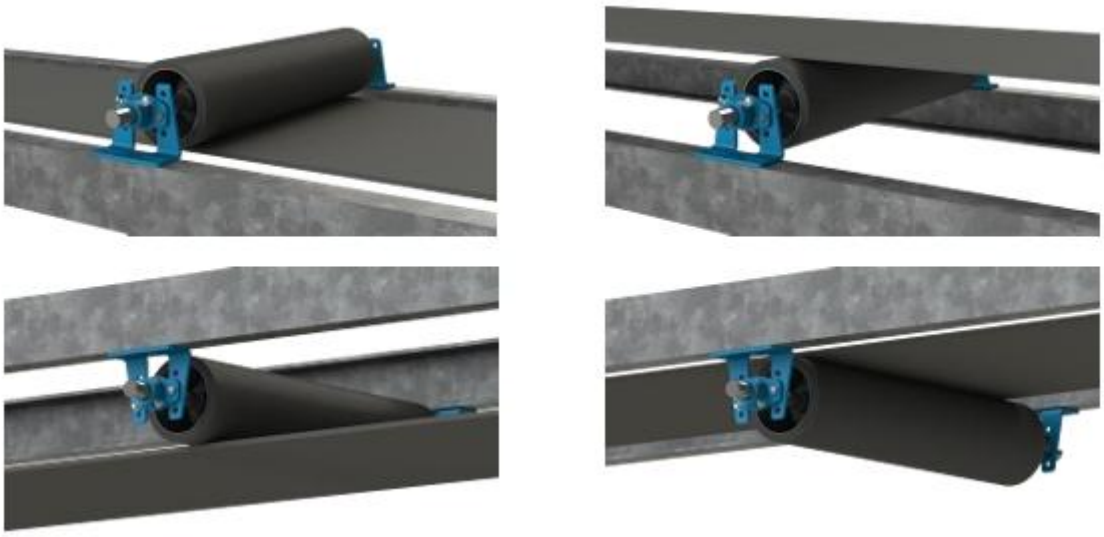
Depending on your stringer and belt arrangement the tracker can be mounted to either the top or bottom of the stringers, and above or below the belt, with above the belt being the recommended position for systems suffering from carry back issues. We recommend top mounting in this case as build up on the tracker can cause excessive lagging wear due to increased abrasion and negatively impact tracking capabilities due to the decrease in transferred friction.

Instruction images alternate between images of brackets mounted on top or below the stringers and above or below the belt. Installation procedure is unchanged by mounting position.



Typically, the tracker should replace an existing return idler set, even if mounted on top. The bracket slots can be retrofitted to holes with spacings varying from 56-144mm that use an M12 bolt.

⚠WARNING⚠

The tracker has an optimal belt displacement range. Excessive wrap or pressure can cause wear/failure and/or passive tracking due to restrictive forces on the inner mechanism. Insufficient wrap or pressure can cause aggressive tracking as there is little resistance to the movement of the tracker.

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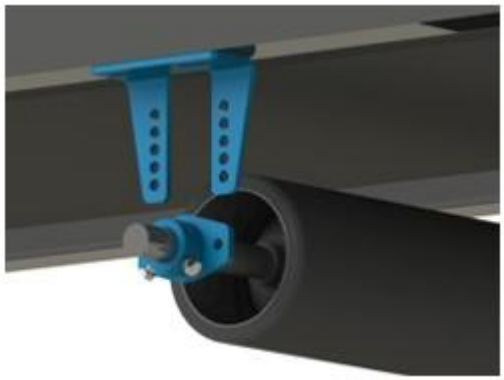
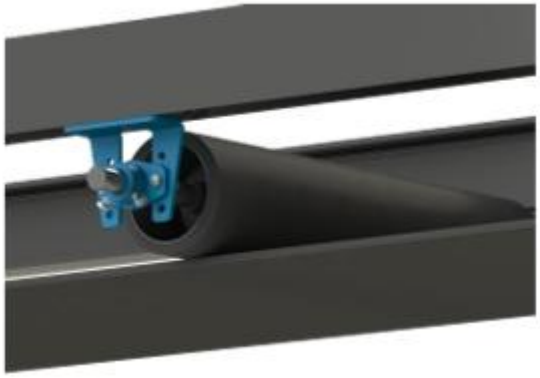
Installation Guide



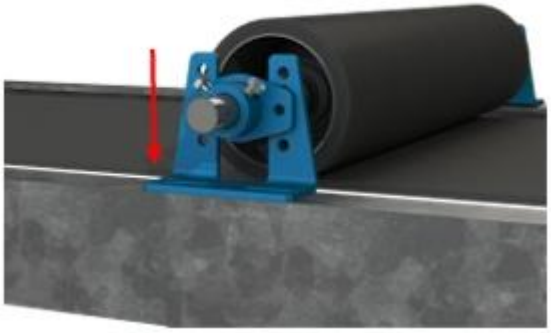
Move the tracker into place and align bracket holes so that the tracker displaces the belt against the return rollers approximately 18mm from the typical belt line.

This can be adjusted later depending on tracking effectiveness.



Mount the base brackets to the structure in the desired location with a set of M12 bolts.

Slide the shaft interface brackets onto the shaft ends and position them so that they align with the base brackets.



Bolt the shaft interface brackets to the base brackets to secure the tracker into place. Tighten shaft locking bolts to ensure that the shaft is properly fixed.

Monitor the tracking activity of your K-Commander® Prime Tracker verifying it is adequately tracking the belt and not overly aggressive or passive.

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Definitions

Aggressive Tracking: Aggressive tracking can be diagnosed when a belt tracking device activates excessively, seeming to cause the belt to track off in the opposite direction. Aggressive tracking is not when the magnitude of belt mistracking is high and the tracker is heavily activated to rectify this. Aggressive tracking generally occurs when there is low pressure on the tracker and high wrap, causing the tracker to pivot more than required.

Passive Tracking: Passive tracking can be diagnosed when a belt tracking device only activates from the most extreme belt displacements and cannot apply sufficient force to retrack the belt. Passive tracking tends to occur when there is high pressure on the tracker and high wrap, which restricts its ability to pivot as required, or when it is mounted in too close a proximity to a pulley, which it cannot overpower.

Troubleshooting

Tracker is tracking too passively no matter the setting.	Contact Kinder for an evaluation of the tracker. It may be the result of outside factors such as: Inadequate distance from a pulley Excessive material build-up on the belt cover. Excessive wrap or insufficient pressure. If the tracker needs to be mounted further than the holes allow, a shim between the bracket and stringer may used.
Tracker is unstable and doesn't seem to track correctly	Ensure that the shaft interface brackets are fixed with two bolts each. A single bolt shouldn't be relied on to secure the tracker.
Tracker is making significant noise during operation	Check that all bolts are properly tightened and that the tracker is properly secured. If the noise appears to be originating from the internals of the tracker contact Kinder for further investigation.
Tracker lagging is wearing rapidly, and/or shaft appears to be bowing/deflecting.	Tension on the tracker is likely too high. While a higher tension and wrap angle can achieve better control of the belt, excessive tension and contact can cause accelerated wear of and/or damage to the tracker.

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