### **GOOD PRACTICE GUIDE**



# Continuous Belt-Load Carrying use of Conveyor Roller Idler

Made in India





#### PERFORMANCE MEETS HEAVY-AGGREGATE MOVER

www.hicConveyors.com T: +91 88266 79660, 72890 45000



Carrying as per IS 8598



Impact with Rubber Rings per CEMA-C



Transition per IPSS-2-03-004-85



Return per ISO 1537



Self-Aligning per DIN 22107



Idler Frame per SANS 1313-2



## Installation & Warranty Information

Quality Product of HIC International Co Inc



Manufacturing Range at: www.UniversalDelhi.org Profile at: www.hicRubber.com



#### Thank You for Purchasing HIC "UNIVERSAL" Heavy-Duty Conveyor Idler

HIC International Co.'s Manufactured belt conveying system Load Carrying Movement Quality Steel with bright bar shaft, single piece frame fitted with seize resistant bearings Conveyor Idler Rollers for Carrying, Impact, Return Idlers up to 2400mm belt widths superseding IS 8598, IS 9295, ISO 1537, DIN 22107, IPSS-2-03-004-85, BS 970-En3B, CEMA-B, CEMA-C series quality standards Superb Housing & Sealing System & Least Total Indicator Run-out as well as Operating Noise aspect Advantage assures Long Life Reliability.



Continuous

#### Belt Conveyor Load Movement Idler Roller Installation Tips

- 1. Carrying Idler install keeping in consideration that all carrier idlers are initially squared with the path of the belt and only the minimum shifting of idlers used as a **training** means. If the belt is over-corrected by shifting idlers, it should be restored by moving back the same idlers, not by shifting additional idlers in other direction.

Obviously such idler shifting is effective for only one direction of belt travel. If the belt is reversed, a shifted idler, corrective in one direction, will misdirect in the other.

Hence reversing belts should have all idlers squared up and left that way. Any correction required can be provided with self-aligning idlers designed for reversing operation. Not all self-aligners are of this type, as some work in one direction only.

Tilting the troughing idler forward (not over 2°) in the direction of belt travel produces a self-aligning effect. The idlers may be tilted in this manner by shimming the rear leg of the idler stand. Here again this method is not satisfactory where belts may be reversing.

2. Return Idlers install taking into account, Flat type, provide no self-aligning influence as in the case of tilted troughing idlers.

However, by shifting their axis (knocking) with respect to the path of the belt, the return roll can be used to provide a constant corrective effect in one direction. As in troughing rolls, the end of roll towards which the belt is shifting should be moved longitudinally in the direction of return belt travel to provide correction.

Self-aligning return rolls should also be used. These are pivoted about a central pin. Pivoting of the roll about this pin results from an offcenter belt and the idler roll axis becomes shifted with respect to the path of the belt in a self-correcting action. Some return idlers are made with two rolls forming a 10° to 20° V-trough, which is effective in helping to train the return run.

A further aid to centering the belt as it approaches the tail pulley may be had by slightly advancing and raising the alternate ends of the return rolls nearest the tail pulley.

3. Side Guide Rollers be used to afford the protection to the belt as an emergency measure, provided that they do not touch the belt edge when it is running normally. If they bear on the belt continually, even though free to roll, they tend to wear off the belt edge and eventually cause ply separation along the edge.

Side guide rollers should not be located so as to bear against the belt edge once the belt is actually on the pulley. At this point no edge pressure can move the belt laterally.

- 4. Pitch or spacing of carrying idler sets of minimum 1meter, in general be done for high efficiency of belt conveying system.
- 5. Spillage of material at loading area be cleaned periodically to protect idler shell, belt cover damages & high power consumption.
- 6. Collision or impingement in tail-pulley & take-up area must be taken care of to avoid damages.
- 7. Feeding Point must have 4-5 sets of rubber lagged Impact idlers at 500-750mm distance to protect high value Belting early damage.
- 8. Material of construction used are proven Housing of CRCA Steel, Shell of MS ERW pipe as per IS 9295, Shaft of EN8 as per IS 9550, Sealing of double labyrinth dust & waterproof, Bearings of reputed seize resistant greased for life.

Size Variation (TIR, total indicated run-out Cylindrical Shell 1.6mm Max. along length <1350mm and >1350mm idler length, 2mm Max.; Shaft Deflection at bearings 0.0029 radians Max.) and others as per HIC manufacturing tolerance should be acceptable.

Disclaimer: Information's, written and verbal are provided by HIC, relative to its troughing idler roller which it determines to be reliable & no liabilities of whatsoever nature in regards to its uses. The purchaser of HIC UNIVERSAL brand conveyor idlers should determine for itself the suitability of such steel products.

Selection Guide: www.hic-india.com | Technical Data Download: www.hicconveyors.com | Reach HIC: export@hicrubber.com



## Why HIC Universal

### **Conveyor Idler Rollers?**

**Dust Proof Multi-Labyrinth Seals Carrying, Return, Impact** Ensures High Bearing Life in Crushers, Sand, Limestone Conveyors

**Corrosion Resistant CRCA Steel Housing Self-Aligning, Training** Ensures Top Durability in Sugar, Chemicals, Quarry Conveyor

Accurate Rotating MIG Welded Machined Shell Ends Ensures Smooth Run in Tunnel, Mining Belt Conveyors Troughing

**CNC Machined Slotted Bright Bar Shaft** Enables Replacement Ease in Coal Washery, Salt, Rock Conveyors

#### Minimizes Seize-Resistant Bearing Misalignment

Prevents Belt Damage in Power Generation, Aggregate Conveyor

- facebook.com/hicguptas
- 💙 twitter.com/Rubber\_HIC
- instagram.com/hicinternationalcoinc
- youtube.com/channel/UC7DFI0-YFzL2F8sKxZ4M0PA
- in.linkedin.com/in/anil-gupta-0800a437
- in.pinterest.com/universaldelhi/









#### www.hic-india.com

