

TSUBAKI DOUBLES THE WEAR LIFE OF BUCKET ELEVATOR CONVEYOR CHAIN

Tsubaki has launched two innovative new components to its bucket elevator products range to deliver twice the service life over conventional products. Its latest FB-specification conveyor attachment chain for bucket elevators features an innovative sealing solution to prevent lubricant contamination, while replacement sprocket blades help to keep the wheels turning for twice as long.

Bucket elevators are traditionally found in extremely tough environments, such as quarries and mines, where they are used to transfer highly abrasive materials such as fly ash (a component of cement), coal and coke. These materials tend to migrate between the pins and bushings of the chain; a contributing factor to chain elongation which reduces the service life of the chain. Tsubaki's new FB-specification chain for bucket elevators uses a unique O-ring design between the link plates to protect against contamination.

FB-specification chain uses a solid lubricant which is bonded to the inner surface of the chain bushing; an O-ring is then mounted between each outer & inner link to prevent external contaminants from entering, while retaining the solid lubricant within. This innovation reduces the internal erosion by preventing the material's ingress and has been shown to double the service life of the chain. Designed for bucket elevators, the conveyor chain features a straight attachment on the side of each outer link to which the buckets are bolted. With an operating temperature range of -15 degrees C to 200 degrees C, the FB specification chain is ideally suited to the applications intended.

Bucket elevator sprockets are also subjected to the harsh working environments and often have a short service life which can lead to regular, high replacement costs; the sprocket teeth being rapidly eroded by the high friction loads and contaminant ingress issues. To further reduce maintenance requirements, Tsubaki now supplies Thermal-Spray-Specification Replaceable Sprocket Blades to sit between the chain and the sprocket proper.

The sprocket blade inserts - which are manufactured with a quench hardening system and then treated with thermal spray to reduce wear - protect the sprocket from the worst of the wear. Each single insert can be quickly removed and replaced as necessary when it becomes worn.

Derek Mack, Sales Director for Tsubaki UK, comments: "Tsubaki is dedicated to manufacturing solutions for its customers. The high maintenance costs associated with bucket elevator applications are considered an unavoidable nuisance by many; whereas we have shown that with some thought during the design process significant improvements can be made. Not only can we show that our products last twice as long as standard competitor products; the FB-specification chain also reduces noise in operation by an average of 2db."

Both the FB-specification conveyor chain and Sprocket Blades have been tested by Tsubaki's voluntary Eco-Link assessment criteria in accordance to its 'eco-eco' promise to clients. By carrying the Eco-Link Mark, customers are assured that the products provide economical savings over the life of the product while also providing ecological benefits; in this case a reductions in raw materials used by replacement parts and also a decrease in operational noise pollution.

About Tsubaki

Established in 1917, Tsubakimoto Chain Company is the world's premier manufacturer of power transmission products with strong market positions in premium quality ANSI & BS roller conveyor & engineering chains and associated power transmission components such as cam clutches, reducers & linear actuators. With a turnover exceeding \$1.4 Billion US Dollars & 5,000 employees, the Tsubaki group includes 28 production locations and 22 group companies worldwide. Our production and sales networks are now more developed than ever.

Tsubakimoto Europe B.V. serves Power Transmission customers in the Pan-European market, Africa and the Middle East from European headquarters located in Dordrecht, the Netherlands, along with two locally based subsidiaries. One in Nottingham, serving the markets of the UK, Ireland & Iceland with the other serving the German market.

