

Application Profile





Application

Formsprag LLH Holdbacks

Overland/Incline Mine Conveyor

Highlights

- (2) custom-designed, narrow-gauge Model
 3500 units installed on headshafts
- Model 3500 LLH units feature a holding torque capacity of 375,000 ft. (510000 Nm)
- LLH sprag technology positively prevents reverse rotation
- Advanced monitoring features incorporated
- 16 LLH units delivered, including 6 spares

Formsprag Clutch has supplied LLH (Long Life Holdbacks) for use on a new coal mine conveyor belt system which feeds an existing preparation plant at a facility located in the Eastern US. Eight standard LLH units were installed at transfer points on the overland portion of the system, while two custom-designed units were utilized in the inclined conveyor section which conveys coal from the mine to the surface.

LLH Series Backstopping Clutches feature sprag technology and are specifically designed for conveyor headshafts, or any other machinery where reverse rotation must be positively prevented. LLH units come ready to install and are equipped with a one-piece, quickly detachable torque arm. Grease labyrinth protected oil seals prevent airborne contaminants from reaching internal seals and parts. Oil lubricated, the clutch assembly also includes an oil sight gauge with filter breather, for ease in checking lubricant level.

Standard smaller LLH models were used along the length of the overland conveyor, which operates at approx. 800FMP. The inclined portion of the conveyor is driven by two 1500 HP motors combined with two speed reducers mounted to the drive pulley. Two LLH units were mounted horizontally on the speed reducers' outboard, low-speed shaft extensions. Due to the limited mounting space on the existing speed reducers, standard 17" width LLH 3500 models would not fit. To meet this challenge, Formsprag engineers custom-designed a narrow-width version.

Formsprag was selected for this project based on their proven track record in providing reliable conveyor holdback solutions for mining applications, adapting a standard design to incorporate advanced monitoring features, and their ability to design a custom width unit to meet customer-specific installation requirements.

US (Application Assistance)

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Asia Pacific

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