WARNER ELECTRIC™
A REGAL REXNORD BRAND

CB-10 Super Wrap Spring Clutch/Brakes
Baggage Handling Conveyor Diverters

HIGHLIGHTS

- Thrust bearing supports weight of input timing pulley
- Oil reservoir wick
- Two Teflon-coated input collar washers
- Dual row spread needle bearings on input hub
- Aircraft grade aluminum collar

PROBLEM

Airport baggage sorting conveyors are designed to withstand the rigors of daily use, especially when it comes to the diverter paddles which swing in and out of position to direct luggage to the proper carousels. In most cases, the drive system for the HSDs (High Speed Diverters) is located in a confined space which dictates the use of a vertically mounted wrap spring clutch/brake with the input down. For this application, the AB (anti-backup) spring is removed to allow the paddles to be moved backward when luggage is jammed or caught between paddles.

There are several problems associated with this design criteria including the removal of the AB spring and the weight of the timing pulley. Another function of the AB spring is to keep the clutch spring unwound when the input is idling. Under these conditions, the clutch spring can drag and overheat the input hub. If the bronze washer is missing or wears, the full weight of pulley is supported by a snap ring that will wear into the pilot washer. Hubs will separate, then the AOR (anti-overrun) can unwind and/or the brake spring up tang moves out of position in the collar.

SOLUTION

In response to these problems, Warner Electric engineers developed the Vertical Mount CB-10 Super wrap spring clutch/brake. The CB-10 Super features a thrust bearing which supports the weight of the input timing pulley, an oil reservoir wick in the AB pocket, two Teflon-coated input collar washers, and an aircraft-grade aluminum collar. Units also have dual-row spread needle bearings on the input hub, a solid solenoid actuator link, #10 solenoid fasteners and a large diameter actuator post.