



Damage on failed competitor backstop

## Product

## BF Series Geared Motor & RSCI Backstop

## Application

## Cement Plant Bucket Conveyor

## Highlights

### Bauer Gear Motor BF Series Shaft-Mounted Geared Motor

- High-tensile cast housings
- Complies with NA and International standards, including NEMA, IEC, CSA and CE
- Corrosion protection COR01, COR02, COR03
- IP65 Enclosure (Standard), IP66 (Optional)
- Completely enclosed, sealed against dust and moisture

### Stieber RSCI 60 Backstop

- Centrifugal throwout (C/T) sprag type backstopping clutch IP66 (Optional)
- 1734 lb.ft. (2350 Nm) torque capacity

A leading global cement producer needed reliable drives and backstops for use on a bucket conveyor at one of its plants in Columbia. The facility produces 1.5 million tons of cement annually for export. Bucket conveyors are utilized to vertically lift material up to 50 ft. for loading into silos. The conveyor drives are comprised of geared motors with incorporated backstops installed on the head pulley at the top of the conveyors.

The originally installed competitor geared motors and backstops were failing after only a few years of service. Sometimes the geared motor would fail, other times just the backstop would fail. In either case, a crane and crew would need to be brought in to remove the failed components and install the replacement units. These repeated problems caused production shutdowns that could cost up to \$1 million/day.

To solve the maintenance issues on the problem conveyor, a Bauer BF 90 shaft-mounted geared motor with a maximum torque rating of 18,500 Nm was installed. Rugged BF Series models feature high tensile cast housings for long life in harsh conditions. Available protection classes range from IP65 to IP66 according to IEC529, which means the BF Series units are protected against water spray and suitable for use outdoors or in humid environments.

The failed competitor backstop was replaced with a long-lasting Stieber RSCI 60 backstop featuring a torque capacity of 1734 lb.ft. (2350 Nm). Model RSCI units are an external bearing-supported, centrifugal throwout (C/T) sprag type overrunning clutch with a rotating inner race. The primary advantage of the centrifugal throwout sprag retainer is that when the sprags lift off the outer race, there is no rubbing contact in the clutch. Therefore, the life of the clutch is determined by the life of the bearings.

### Contact

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