

Application

Boom length on Crane

Industry

Cranes
Heavy Vehicles
Material Handling

Application Overview

All boom cranes or extension cranes utilize some form of measurement of the length of the extension arm. For large extensions, up to 160 ft or more, a cable pull is essential.

Application Challenges

- Small mounting dimensions
- Long Linear sensing distance
- Difficult environment
- Large number of strokes

Solution(s)

By pulling in and out long distances of the boom, a cable pull transforms linear motion into rotary for speed and position monitoring.

The Baumer IVO cable-pulls, for example, may be combined with different incremental or absolute encoders with Fieldbus interface. All designs ensure an excellent linearity and service life of about 5 million strokes.

These compact cable-pulls are intended for use under rough ambient conditions, feature a stainless steel cable of 0,8 to 1 mm in diameter with polyamide coating and are available in measuring lengths with a maximum of 50 m and a linearity up to +/- 0,02 %.

In position sensing with an absolute encoder, referencing using contact sensors are no longer required while maintaining positions in case of power loss. Multi-turn encoders operate with resolution up to or exceeding 8192 steps/turn.

Supporting Documentation

- Baumer website:
www.baumer.com
- Flyer on the Baumer website
- http://www.baumerivo.com/cgi-bin/news.pl?mode=static&name=News04-ivo106_seilzug-drehgeber&tpl=detail&lang=en



Model GM401.120A102 SSI

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