Linear Position Sensors for Laser-Guided Edgers

Problem
A laser-guided edger is utilized in a lumber mill to scan logs and determine the maximum number of boards of varying dimensions that can be produced from a single log. The rough log is then cut into usable lumber. LDTs are installed on hydraulic cylinders to reposition and guide the logs for each cut.

The MTS LDTs that were installed were failing (generating false signals) due to the severe shock and vibration associated with lumber processing. In some cases, the LDTs were faulting every 15 minutes. This resulted in wood scrap, increased maintenance, and lower production.

Solution
GEMCO 953 VMAX LDTs replaced the existing MTS LDTs. They were installed into the existing hydraulic cylinders with our MTS connector option (M), making for a seamless integration. The 953 VMAX is shock resistant to 1,000 Gs and vibration resistant to 30 Gs. Installed over six months ago, the 953 VMAX have not failed once, thereby saving the lumber mill $3,000 a day on scrap and maintenance costs.

Benefits
- Drop-in replacement for competitive model LDTs
- Accurate and reliable absolute position indication with high resolution and repeatability
- Resistance to high shock and vibration (1,000 Gs of shock and 30 Gs of Vibration)
- Wide input power range of 7 to 30 VDC means no need to specify different models
- IP68 rated
- Diagnostic LED

Conclusion
The 953 VMAX is a heavy duty, reliable, drop-in replacement for competitive LDT models, that can provide protection against high shock and vibration in hydraulic applications. In this case, a cost savings of $3,000 on scrap and maintenance costs was realized.