

Boom Lifts



Boom lifts, both telescopic and articulating, are primarily used for jobs that require high reach capability, or for reaching up and over machinery, equipment, and other obstacles. Able to extend up to 150 feet high and rotate a full 360 degrees, these versatile machines enable the operator to maneuver forward or

backward, steer, raise/lower or extend the boom arm, all from the work platform (basket) itself. This is all done while keeping the work platform level and stable.

While in service, these boom lifts will be required to carry various payloads in all types of terrain. The actual working load on the boom itself is dependent upon the angle of the boom, and how far it is extended (telescoped). The attitude of the chassis is also relevant.



Articulating Boom Lift



Telescopic Boom Lift

This gives us three distinct applications for an inclinometer and/or tilt sensor;

- *work platform angle*
- *boom angle*
- *chassis attitude*

The *work platform angle* does not require a large angular measurement range being a leveling application, but does require high accuracy. The SPECTROTILT™ *Electronic Inclinometer* is a great choice for this application. The various input/output configurations offer numerous interface options. The SPECTROTILT™ having a hermetically sealed sensing element, full ESD and EMI protection, an aluminum housing, and a fully potted electronics also provides exceptional environmental protection

The *boom angle* application is virtually the same as in a *Crane Safety System*, whereas changes in the fractions of a degree can equate to dramatic changes in the actual working load, leading to a 'tip-over' situation. This application is best served by the SPECTROTILT™ *RS232 Electronic Inclinometer*. Please see the '*Crane Safety Systems*' Applications Note for further details.

The *chassis attitude* application is nearly identical to a manlift, whereas the exact angle of the chassis is not important, only that it remains within a certain angular limit from level. This application can be readily satisfied by either of three *Spectron* products:

- *TAD II Threshold Angle Detector*
- SPECTROTILT™ *II Dual Axis Inclinometer*
- *SP Series Dual Axis Electrolytic Tilt Sensor*.