

PORTAL CRANE CARE AND MAINTENANCE  
BY FRANK KEMP

Frank Kemp gave a very effective presentation on portal crane care and maintenance. He advocates a weekly preventative maintenance program. Each user should develop a check list to ensure follow-up for their particular crane. An overview of the key items that Frank emphasized are:

A. Identify things to look for on a standard inspection.

For Example:

- ❑ Look at all current readings on all motors and compare with previous inspection.
- ❑ Drive system, monitoring of motor, wear on gear drives, brushes, and measurement on wheel frame;
- ❑ Trolley wheel flange wear is a frequent problem with most units. Trolley motors may not be pulling same current; could have miss-alignment.
- ❑ Pull inspection covers on gear box and look for wear pattern on teeth, build-up. Take pictures for later comparison.

B. At least once per year, bring in someone from outside to work with your mechanics on an inspection.

C. After five years, spot check structure.

D. When changing a cable, make sure four cables are same length. Could order four reels of cable and each would weigh the same.

E. Rack and pinion is the best way to go with an elevator. The wear on a crane is very minor and the two separate drives (main drive, over-speed) is an important safety feature.

F. Three styles of power cable reels in industry:

- ❑ Old Style Heede – Reverse switch is critical.
- ❑ Hillmar Reel – Modular components make it easy to fix a problem.
- ❑ Gantrex Reel – Only problem has been over-heating on clutches.

G. Disc brakes are easier to maintain than drum brakes. Too often users do not maintain their gantry brakes.

H. Need to use reeling cable and not just mining cable.

I. Mack grapple is a very good unit and you get good support from them.

The question and answer session following Frank's presentation had to be cut short due to the time constraint.