



**SAFETY ALERT**



**JKKP/DOSH**

## **TOWER CRANE FAILURE**



A dangerous occurrence has occurred involving a luffing tower crane that was in parking position where the boom has fallen slowly over a civilian car. Fortunately, this incident did not involve loss of life only property damage. On the day of the incident, wood lifting work was carried out in the morning but the crane operation was stopped after the crane operator detect a burned smell at the brake system. After the crane operation stopped, about an hour later, the crane boom dropped slowly until it hit a car. Preliminary investigation found that there was a failure in the crane brake system.

Based on this incident, among the things to be considered are as follows:

- i) Crane operators should handle the cranes in the appropriate manner and comply with the procedures set out in the operating manual;
- ii) Crane owners should ensure that cranes are maintained and checked periodically;
- iii) Inspection on brake components should be carried out carefully. Among brake components that need attention are as follows:-
  - a. Brake lining
  - b. Hydraulic oil supply
  - c. electrical wiring or components related to the braking system and other
- iv) If cranes were stopped within a short period of time, crane operators must comply with the procedure 'leaving unattended cranes' by ensuring :-
  - a. load has been removed from the hook;
  - b. Electrical supply have been switched off;
  - c. Brake locking should be put on and;
  - d. Boom should be parked according to the angle outlined in manufacturer's manual

### **Further Information:**

- <http://www.labour.gov.hk/eng/public/os/B/crane.pdf>
- [https://www.worksafe.qld.gov.au/\\_data/assets/pdf\\_file/0016/58201/tower-crane-cop-2006.pdf](https://www.worksafe.qld.gov.au/_data/assets/pdf_file/0016/58201/tower-crane-cop-2006.pdf)