

# **Ican Report**

## Preventing Crane Runaway Accident

No.14 Eng.Ver Date April 2016

Ican Report No. No7,( we have also touched this topic in Ican Report No.12) Recent incidents of sudden wind gust caused by extreme weather events due to global warming are increasing. Accidents involving traveling cranes have been caused by many reason most frequently due to the reasons listed below.

These causes are just the tip of the iceberg. Damage to the traveling bogie other damage as well as serious accidents, including fatal accidents are regrettable outcomes of runaway cranes. Saddly, too many accidents are occurring.

The gigantic forces resulting from wind gust show how inadequate current brake systems are. It is difficult to stop moving crane in the prevention system.

#### Basic cause of accidents are the result of:

- 1) The lack of braking force on connected to the electric motor shaft.
- 2) The difficulty in maintaining the brake of the motor shaft because basicly not visible, and the sheer number of the adjustment bolts.

Too many Bolts. With 100 to 150 bolts per cranes maintaining appropriate gap adjustment is extremely difficult.

- 3) Although the rail clamp is installed, these are only effective in a parked-stationary state. Totally useless when the crane is in motion and moving.
- 4) A lack of developments in runaway crane prevention systems.

### **Positive options;**

Installing an Ican Runaway Stop series rail brake (IRB-N, IRBP) to the travel bogey, for ultimate braking control in combination with an N-mount or Mid-mount Super stop brake (IB30) type of electric motor shaft brake.

It is recommended that these can be installed on existing cranes with wheel brakes(IWB) alternatively insted of IRB-N, IRB-P.

#### **Passed accidents**

- 2003 Runaway accident of continuous unloader in 2003 at the Kashima Port.
- 2008 Yangon harbor runaway two container cranes was unable to stop and crashed into the sea.
- 2003 Surabaya harbor runaway container crane accident cause not yet determined.
- 2006 Niigata east port runaway one container crane was collapsed
- 2008 Jacksonville harbor runaway container runaway crane caused three container cranes to collapse.

Many others



**Runaway Stop**