

Reducing accidents and claims in ports & terminals

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4th Black Sea Ports & Shipping
Istanbul 29th May 2015

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Cost of Claims

Claims analysis overview

Claims analysis and loss prevention

Governed by the industry for the industry

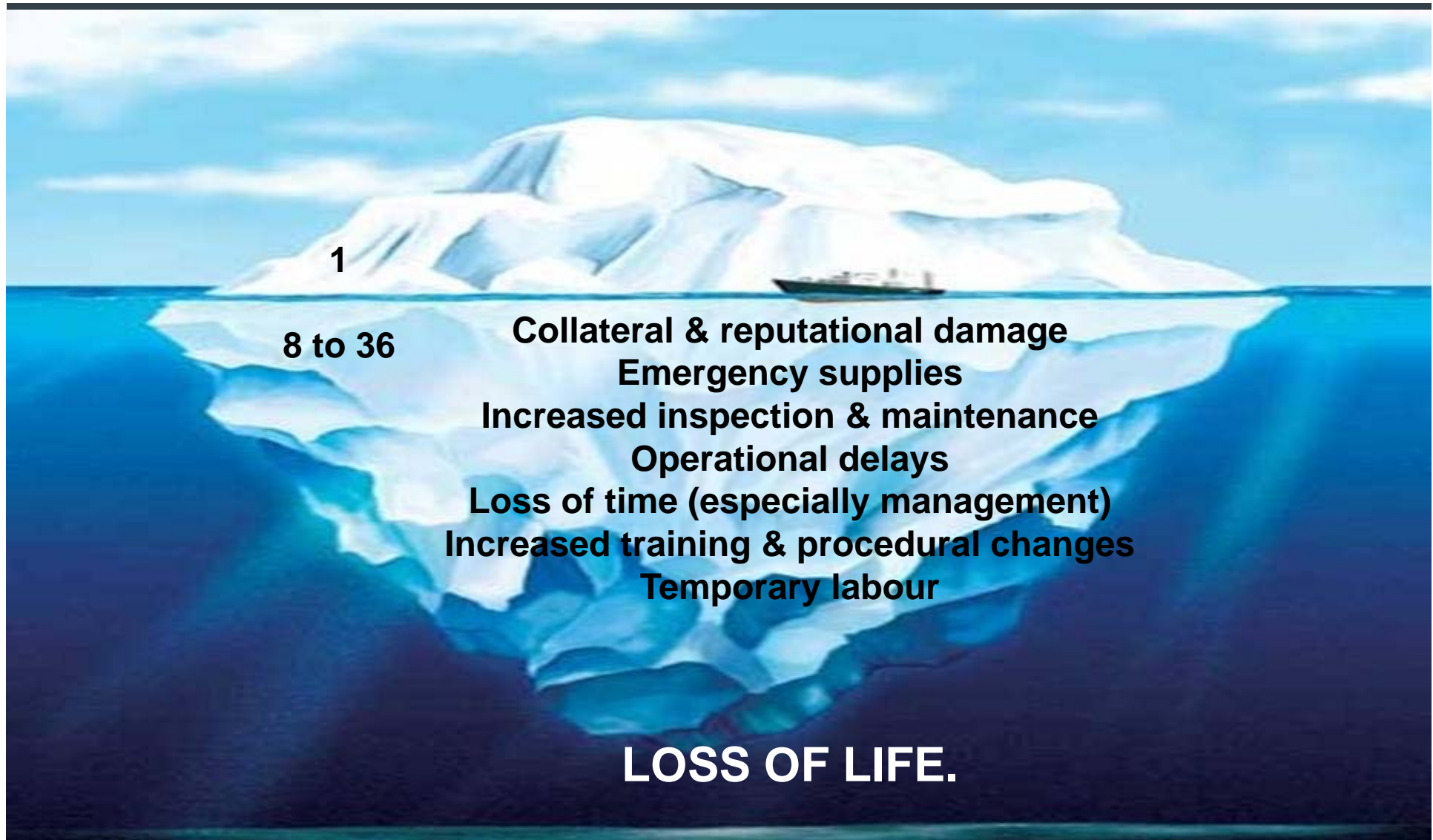


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Cost of Claims

Claims analysis overview

Claims analysis and loss prevention



1

8 to 36

Collateral & reputational damage
Emergency supplies
Increased inspection & maintenance
Operational delays
Loss of time (especially management)
Increased training & procedural changes
Temporary labour

LOSS OF LIFE.

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Cost of Claims

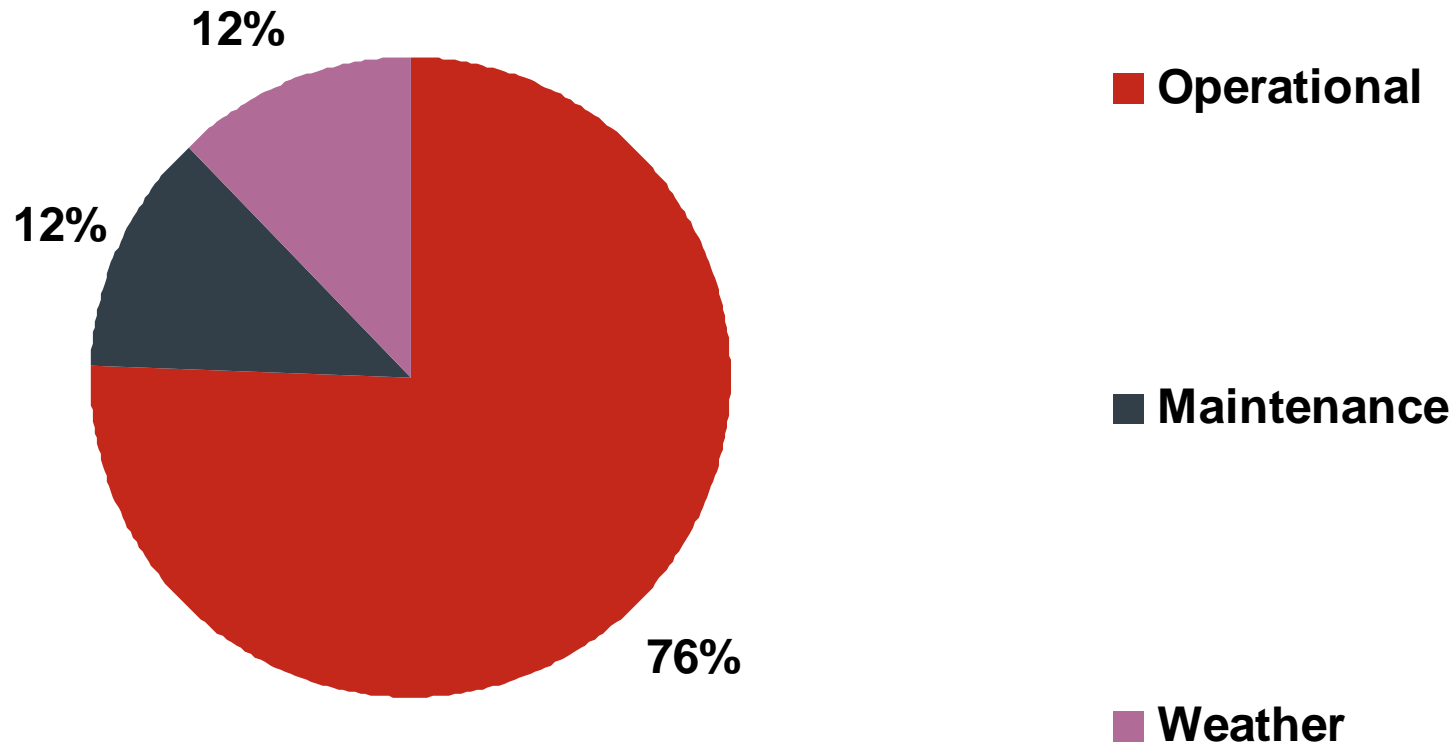
Claims analysis overview

Claims analysis and loss prevention

Analysis of the main causes of claims:

- Includes last 5 years data
- 2009 – 2013
- All claims over US\$10,000
- 6,889 claims
- Includes all claim types:
 - Property
 - Liability
 - Bodily injury

Ports and Terminals Main cost cause categories



Claims analysis overview

Claims analysis and loss prevention

Operational issues

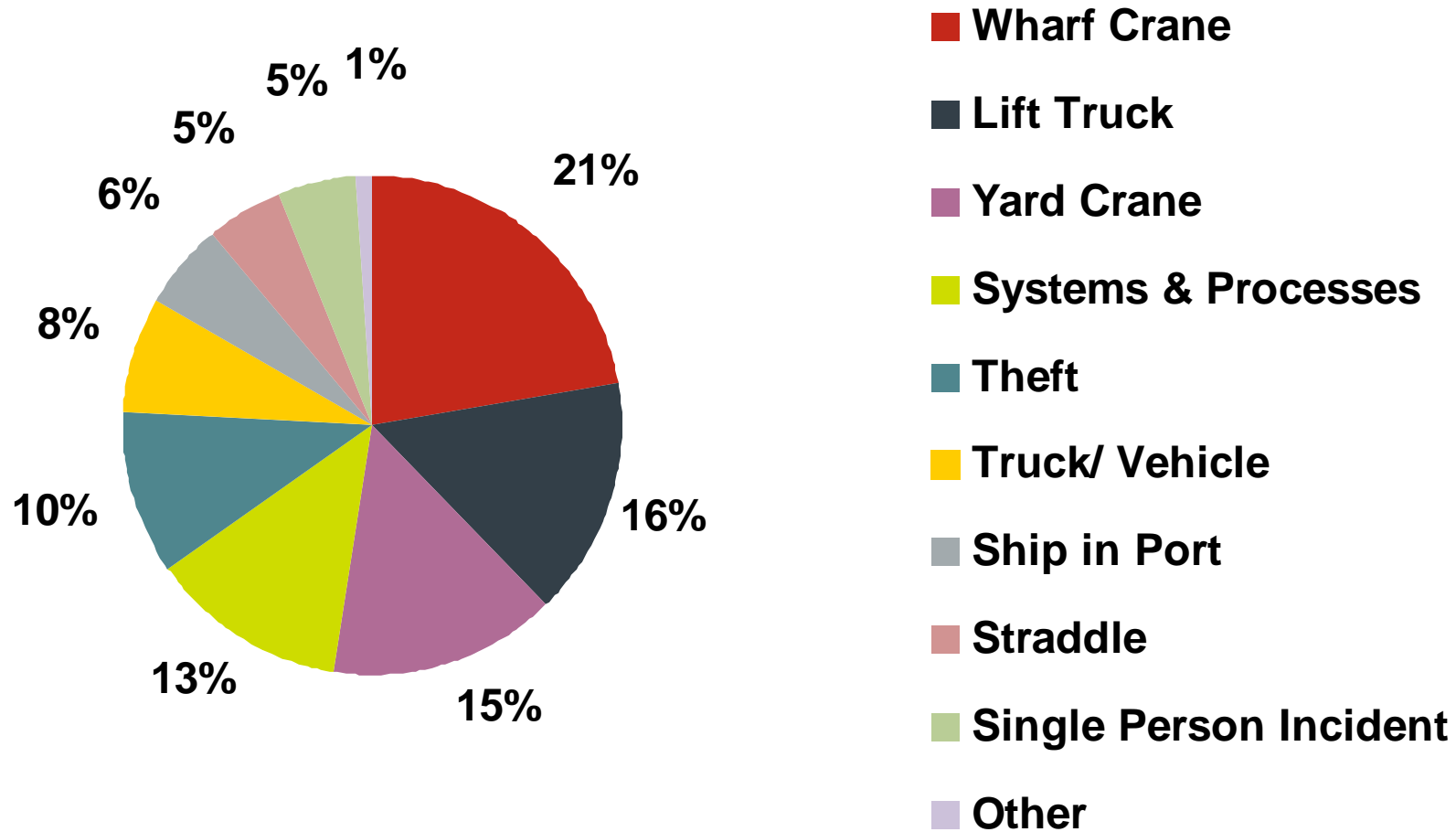
Maintenance Issues

Weather issues

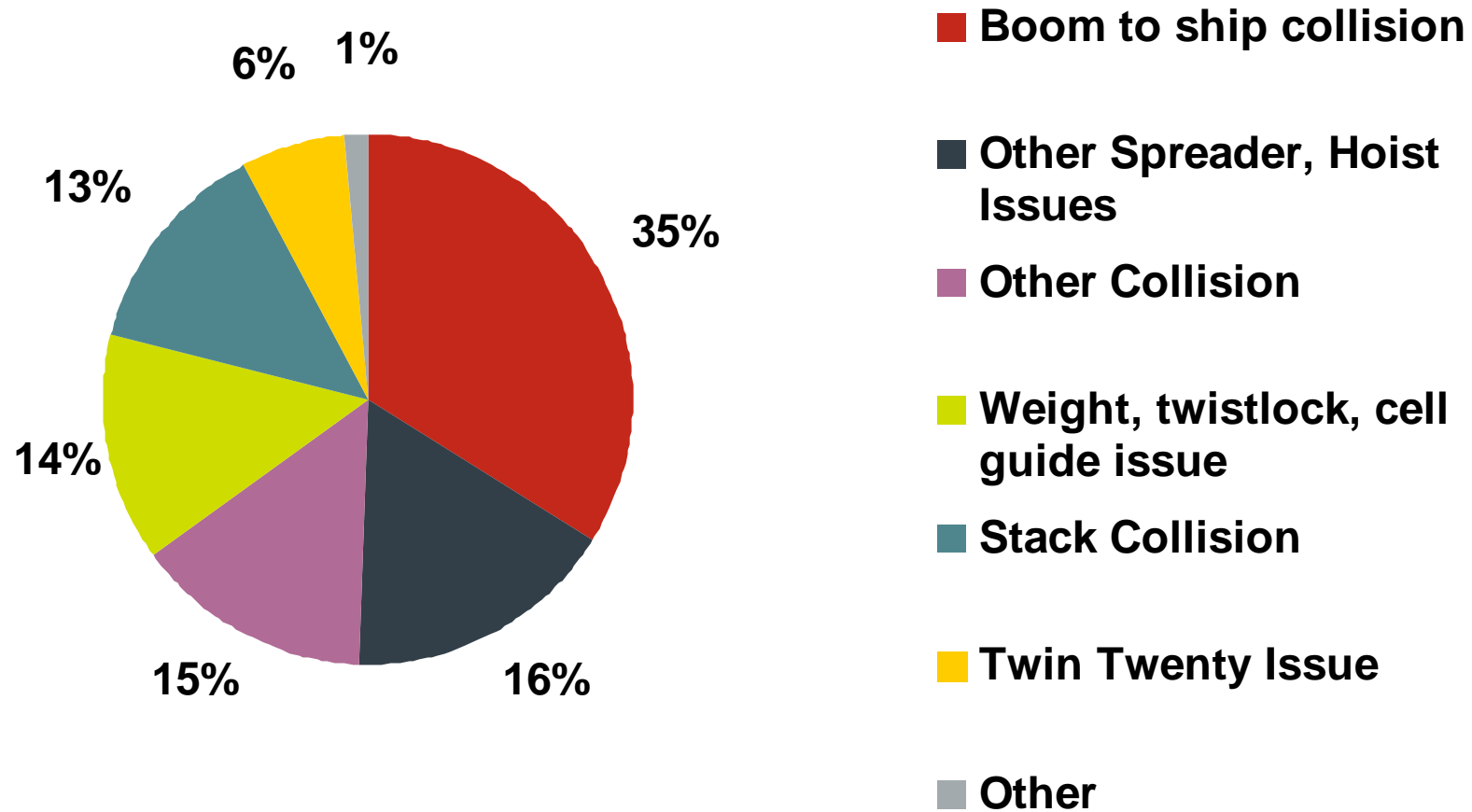
Bigger ships and bigger and more cranes



Ports and Terminals Operational issue costs



Ports and Terminals Wharf crane issue costs





Boom to ship collisions – Loss prevention

35% of quay crane claims costs

Totally preventable with quay crane boom anti-collision sensors







Lifting the trailer and container



Twistlock / weight issues – Loss prevention

Spreader, twistlock, container weight & eccentricity issues**14% of quay crane claim costs****3% of yard crane claims costs**

Many preventable with twistlock load sensing technology

Measures weight & eccentricity of each container

Can be installed on any twistlock, on any spreader and on any equipment

Suppliers:

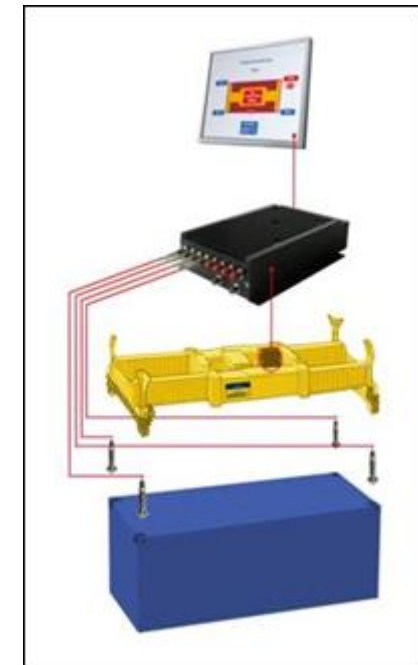
- Lasstec – www.lasstec.com
- Bromma – www.bromma.com

Detects & prevents:

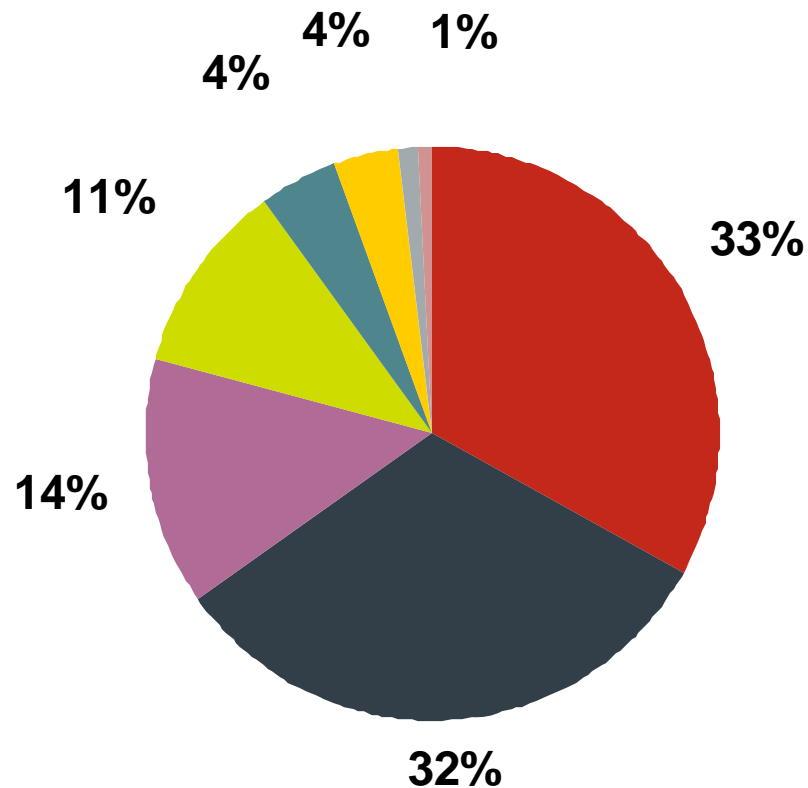
- Lifting of trailer or rail wagons still connected to container
- Lifting if not all twistlocks engaged
- Snag load situations
 - Container still locked with stack or stuck in cell guides
- Slack rope detection after landing without box

Measures and records:

- Each twistlock & total container weight
 - Safer handling of containers
 - Better ship planning to ensure trim and stability
- Load eccentricity in single & twin lift
 - Help prevent trucks overturning
 - Can side shift spreader before exiting ship cell guides
- Twistlock load cycles
 - Optimise twistlock replacement intervals
 - Spreader & crane life cycle management & overload tracking



Ports and Terminals Bodily injury claim costs



- Lift Truck
- Yard Crane
- Single Person Incident
- Truck/ Vehicle
- Wharf Crane
- Straddle
- Other Operational Issues
- Systems & Processes

Lift truck / vehicle collision





Traffic management – Loss prevention

84% of injury costs caused by equipment and vehicle drivers

Prevention:

- **Traffic management procedures:**
 - One-way traffic flows
 - Limiting vehicles & pedestrians in yard
 - Site induction procedures
 - Safe area for truckers to secure/unsecure loads
 - Speed limits set and enforced
- **Technologies:**
 - RFID system on all pedestrians and mobile equipment
 - Mobile equipment anti-collision sensors
 - Rear view cameras

Dangerous Work practices



Dangerous practices



Dangerous practices



Training:

- Continuous safety awareness
- Enhanced focus on driver training (simulators)

Procedures:

- Preventive not breakdown maintenance
- Better crane securing procedures & brake maintenance
- Structural inspections
- Ship movement & berthing procedures
- Security – theft
- Systems & processes – pack it right
- Traffic management

Re-design/Technology:

- Wharf crane boom anti-collision sensors
- Wharf & yard crane stack profiling
- Mobile equipment travel anti-collision
- Fire suppression
- Container weight & eccentricity measurement.



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