HYSTER-YALE GROUP

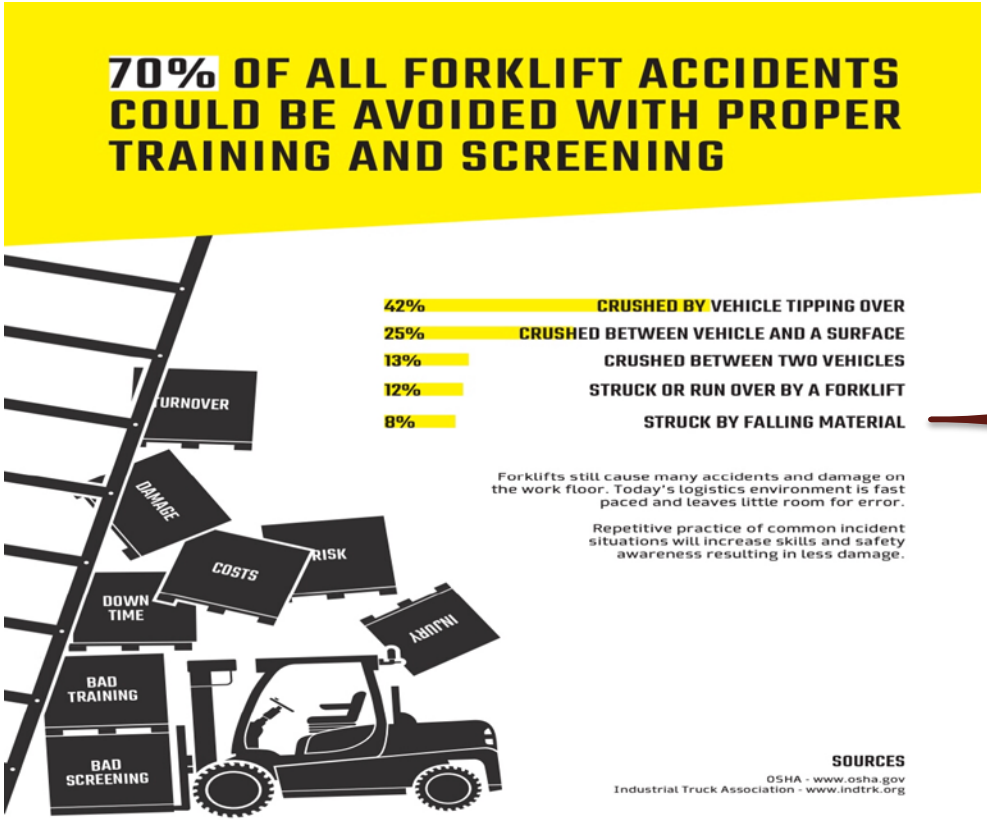
Forklift Safety

Product Damage Reduction / Training & Innovations

July 9, 2019

Presented by: Joe Grana – Paper Application Specialist

Training and Innovation



42% - Truck Tipping Over

25% - Vehicle and a surface

13% - Between two vehicles

12% - Struck by a forklift

8% - Struck by falling material

HYSTER-YALE GROUP

Traditional Training

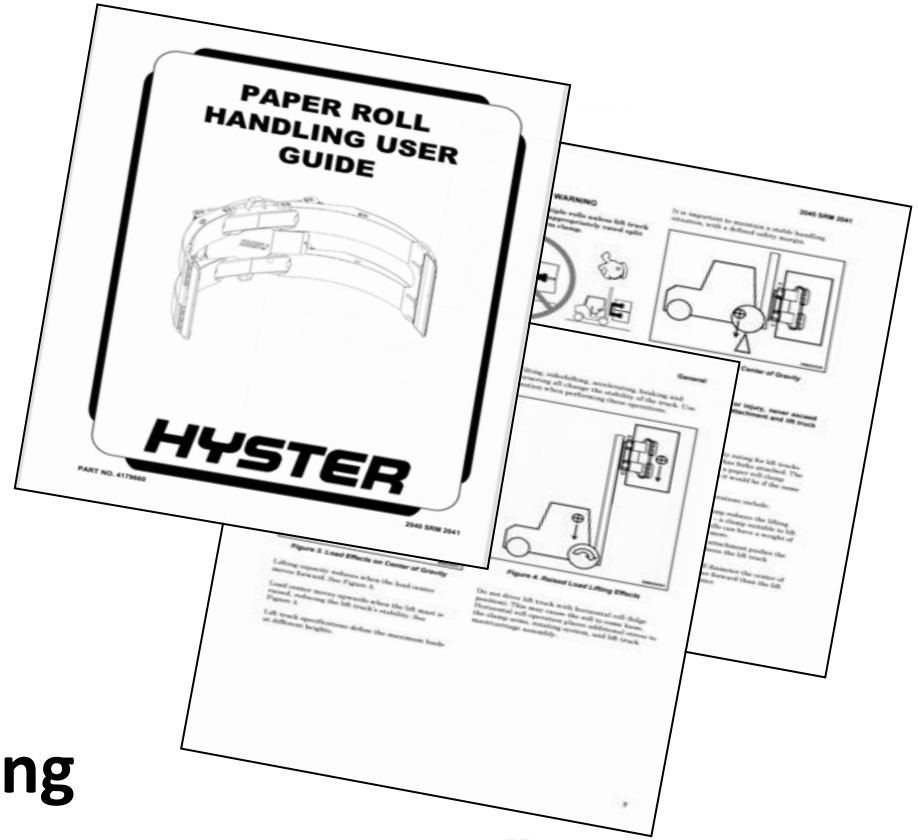
Training / Certification

Nothing can substitute for a robust training program

HYSTER-YALE GROUP

Training / Certification

- OSHA Requirements
  - Classroom
  - Environment / Ramps / Pedestrian
  - Product Specific
  - Recertification
    - Repeat every three years
    - Accident / near miss
    - New Environment / new equipment



Tried and True but Challenging

HYSTER-YALE GROUP

Application & Product Specific

- ❑ **Stacking**
- ❑ **Ramps**
- ❑ **Attachment**
- ❑ **RR Tracks**
- ❑ **Trailer Entry / Exit**

HYSTER-YALE GROUP

Simulation Training

Virtual Reality Lift Truck

- Little / no risk in a safe and controlled realistic scenarios
- Improve retention and recall
- Suitable for different learning styles
- Can be done remotely saving time and money
- Training is easier if the experience is enjoyable

Application
&
Product Specific

HYSTER-YALE GROUP

Engineered Assistance

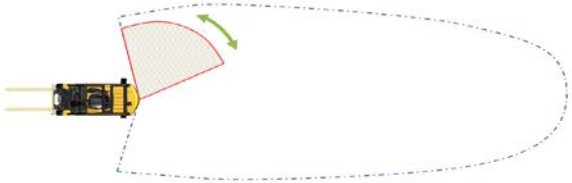
Examples of current research and testing of technologies designed to aid the operator in situational awareness

Innovations

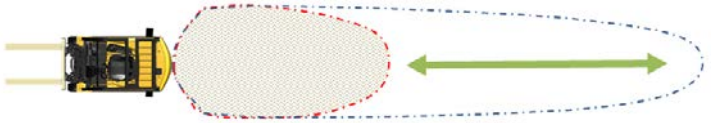
Object and Side Detection

Assistance Type

- ✓ **Audio, Visual and Haptic**
- ✓ **Functional / Speed Reduction**



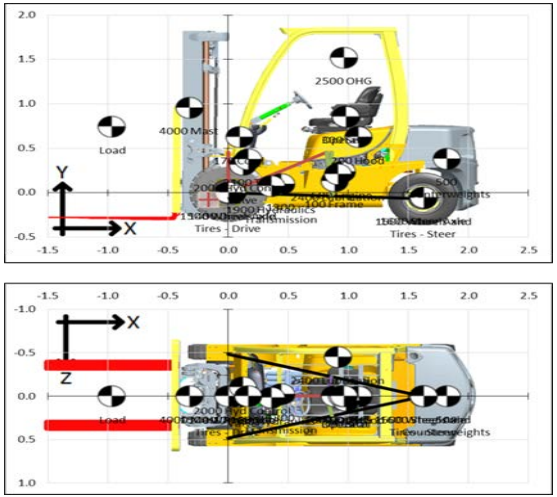
Steer Sweeping



Zone Sizing with Speed

Innovations

Dynamic Stability



Assistance Type

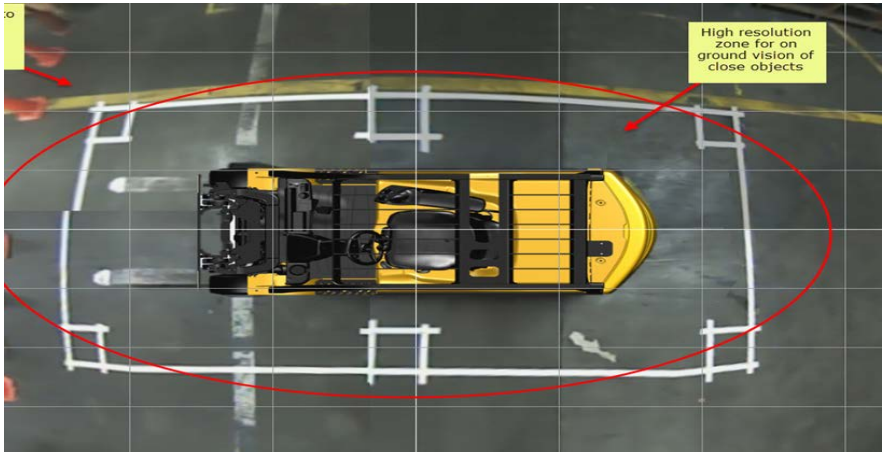
✓ Visual

Functional

✓ Speed Reduction

Innovations

360° Cameras



- 4 strategically placed cameras provide a full 360 view of truck surroundings
- Real-time video stitching
- Clear ground level object feedback
- Customizable camera parameters and trigger capability
- Full view: areas of interest
- 10” color display to operator

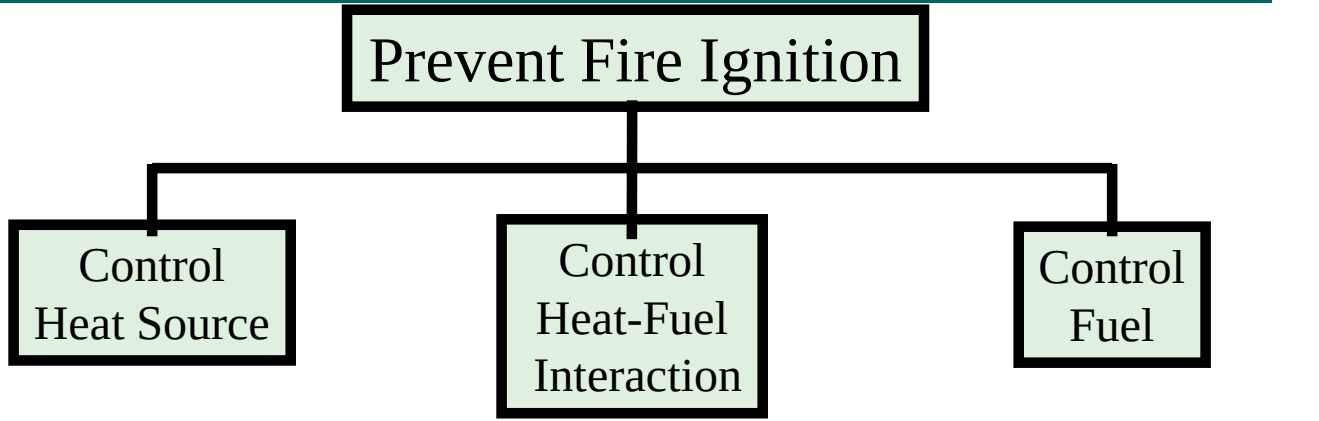
HYSTER-YALE GROUP

Fire Suppression System

Fire Suppression System for Light Vehicles is designed to quickly and effectively suppress fire in small to medium four-wheel drive and small mobile plant such as forklifts.

HYSTER-YALE GROUP

NFPA - Fire Safety Concepts Tree



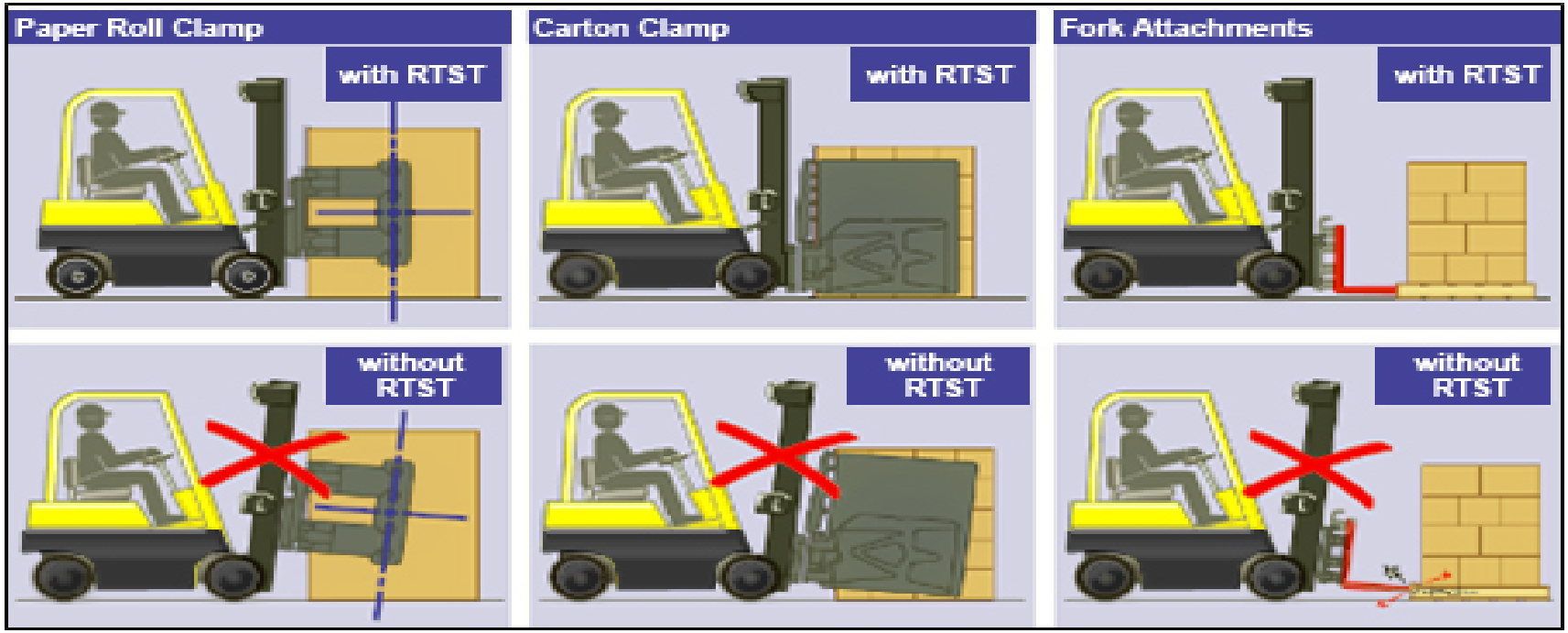
Paper Damage Prevention

Drop Stop Valve

A single cartridge style valve that will prevent chain slack on all two, three and four-stage masts with forks or attachments.

Overcomes the tendency of lift drivers to hold the lowering control valve open after load has been safely deposited.

Paper Damage Prevention



Paper Damage Prevention

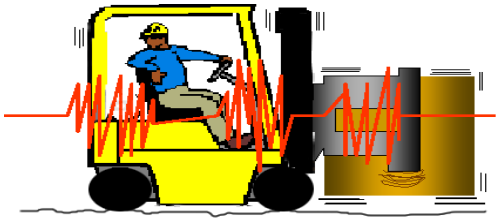
Edge Damage

Solutions

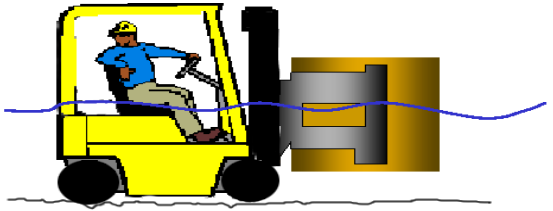
- Tilt Control
- Rotational Control
- 180 Degree Rotation Stops

Hydraulic Accumulator Option

- Accumulator works as a shock absorber to reduce shock to the load
- Provides a smoother ride for the operator
- Vibration levels experienced by the operator can be reduced by 60%
- **Helps prevent load slippage in clamping attachments**
- **Reduces product damage**



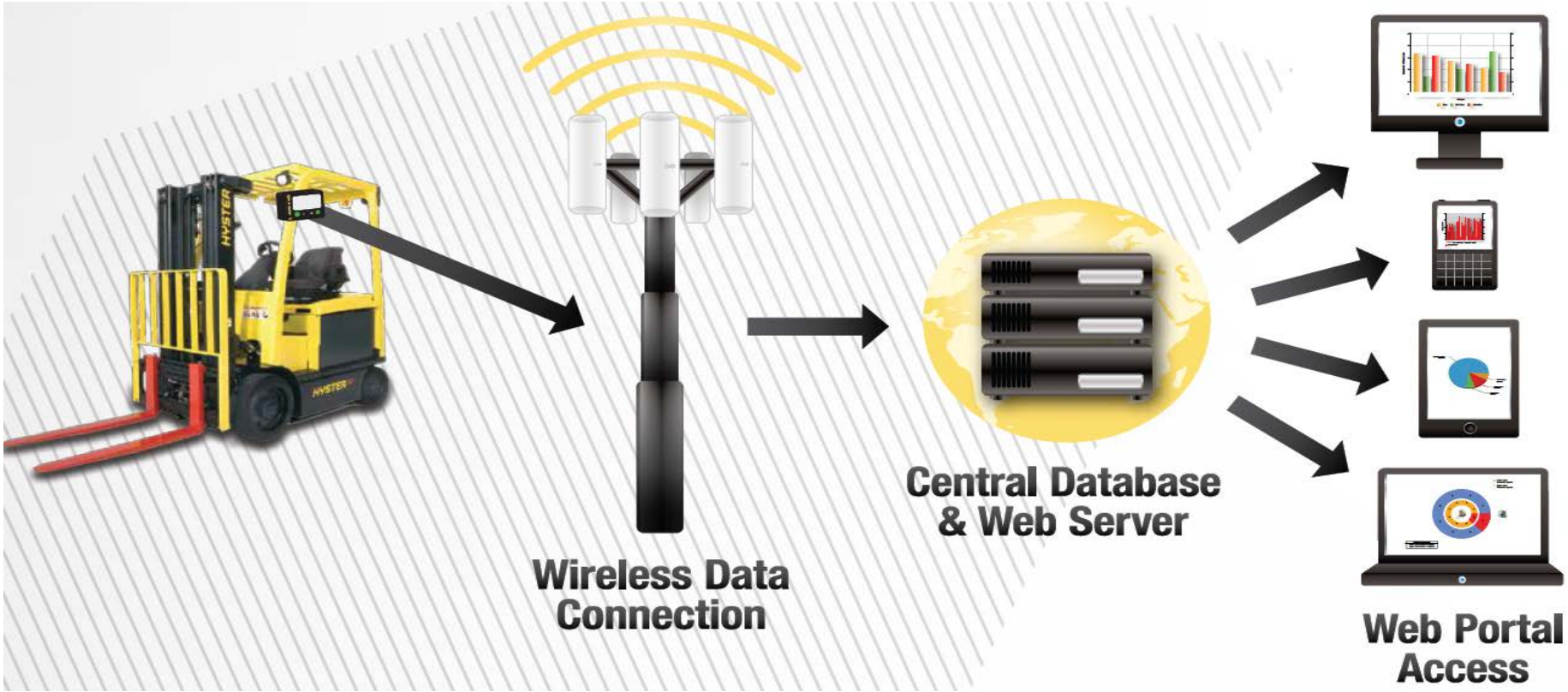
Without Accumulator



With Accumulator

Situational Awareness

Wireless Asset Management



HYSTER-YALE GROUP

Innovations

Training and Innovation

Helping to Keep our Employees Safe

HYSTER-YALE GROUP

Emma

Training and Innovation

Questions?