

# New Trailer Hitch Comes Disconnected While Making Turn

## Purpose

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To share "lessons learned" gained from incident investigations through a small group discussion method format.

To understand "lessons learned" through a Systems of Safety viewpoint.



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## Lessons Learned

Volume 06 Issue 7

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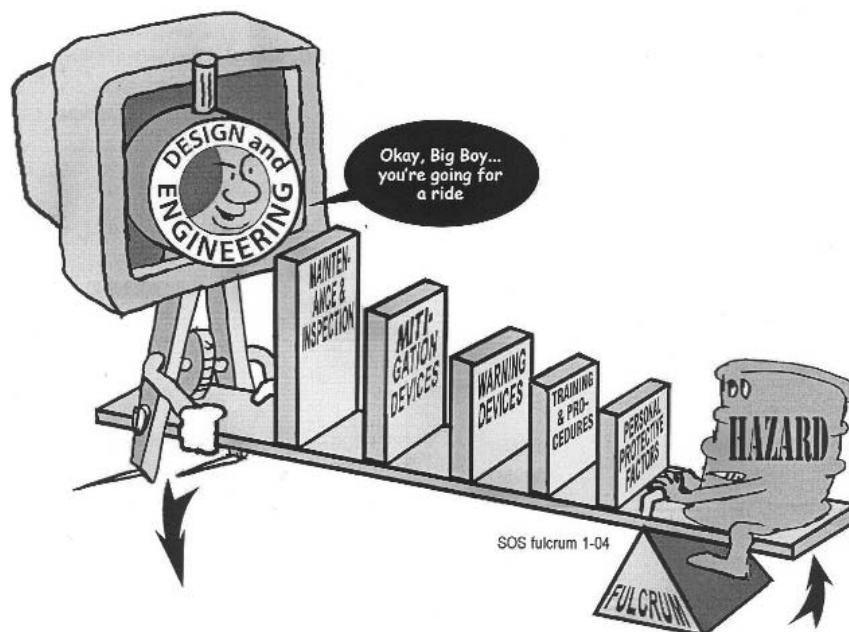
## Background Information

Before beginning this Lessons Learned, please review this and the next page which contain information that will introduce the concepts of Lessons Learned and Systems of Safety.

Creating a safe and healthy workplace requires a never ending search for hazards that sometimes are not obvious to us. These hazards exist in every workplace and can be found by using various methods. Lessons Learned are just as the name suggests: learning from incidents to prevent the same or similar incidents from happening again.

**Systems Are Not Created Equal: Not equal in protection and not equal in prevention.**

Using our Systems Focus to uncover system flaws or root causes is only one part of controlling hazards. We also need to look at the systems involved to decide on the best way to deal with the problem. The most effective way to control a hazard is close to its source. The least effective is usually at the level of the person being exposed. The system of safety in which the flaw is identified is not necessarily the system in which you would attempt to correct the flaw.



Safety Systems	Design & Engineering	Maintenance & Inspection	Mitigation Devices	Warning Devices	Training & Procedures	Personal Protective Factors
Level of Prevention	Highest — the first line of defense					Lowest — the last line of defense
Effectiveness	Most Effective					Least Effective
Goal	To eliminate hazards	To further minimize and control hazards				To protect when higher level systems fail.
<b>Examples of Safety Sub-Systems*</b>	<b>Technical</b> Design and Engineering of Equipment, Processes and Software	Inspection and Testing	Enclosures, Barriers and Containment	Monitors	Operating Manuals and Procedures	Personal Decision Making and Actions <sub>HF</sub>
	Management of Change (MOC)	Maintenance	Relief and Check Valves	Process Alarms	Process Safety Information	Personal Protective Equipment (PPE) and Devices <sub>HF</sub>
	Chemical Selection and Substitution	Quality Control	Shutdowns & Isolation Devices	Facility Alarms	Process, Job and Other Types of Hazard Assessment and Analysis	Stop Work Authority
	Safe Siting	Turnarounds and Overhauls	Fire and Chemical Suppression Devices	Community Alarms	Permit Programs	
	Work Environment <sub>HF</sub>	Mechanical Integrity		Emergency Notification Systems	Emergency Preparedness and Response	
	<b>Organizational</b> Staffing <sub>HF</sub>				Training	
	Skills and Qualifications <sub>HF</sub>				Information Resources	
	Management of Personnel Change (MOPC)				Communications	
	Workload				Investigations and Lessons Learned	
	Work Organization and Scheduling					
Allocation of Resource						
Codes, Standards and Policies**						

HF - Indicates that this subsystem is often included in a category called **Human Factors**.  
 \* There may be additional subsystems that are not included in this chart. Also, in the workplace many subsystems are interrelated. It may not always be clear that an issue belongs to one subsystem rather than another.  
 \*\* The Codes, Standards and Policies and Management of Change subsystems listed here are related to Design and Engineering. These subsystems may also be relevant to other systems, for example, Mitigation Devices. When these subsystems relate to systems other than Design and Engineering they should be considered as part of those other systems, not Design and Engineering.



## Lessons Learned

**Title:** New Trailer Hitch Comes Disconnected While Making Turn

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### Lessons Learned Statement

When new equipment is brought into the workplace, we cannot just assume everyone will be able to use it without training. This is especially important when motor vehicles or machinery is involved.

When applying *Systems of Safety* to the hazards encountered when changing to new equipment or processes, the **Design and Engineering System of Safety** is the most effective tool to use.

*Management of Change*, a sub-system of **Design and Engineering**, is vital as all aspects of the new equipment or process are examined as to how they will interface with current processes and equipment. After a *Management of Change* review, several *Systems of Safety* may need to be applied to the newly identified hazards. In this Lessons Learned, it was determined that both **Training** of workers on the new equipment and new **Procedures** were needed.

**Discussion**

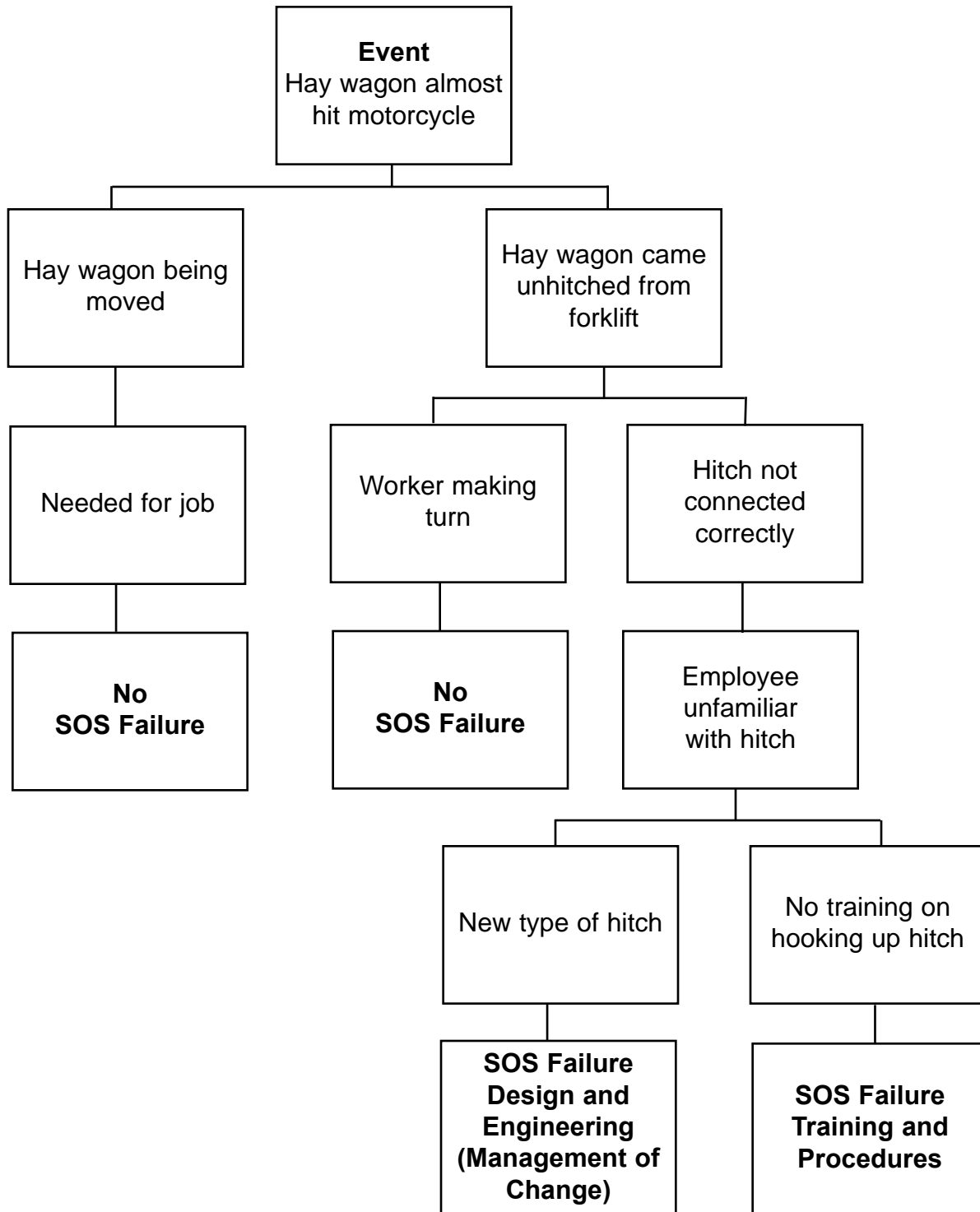
There was a near-miss involving parked vehicles at XYZ Industries. A worker was moving a hay wagon with a forklift. When the worker tried to make a turn behind a pick-up truck parked at the supervisor's office, the hay wagon came unhitched from the forklift.

The hay wagon started to drift toward a parked motorcycle. The worker was able to position the forklift between the hay wagon and motorcycle, stopping the hay wagon before it struck the motorcycle.

The worker realized the hitch had not been connected properly. This was a new hitch and he had never been trained on how to connect it to the forklift.

**Analysis**

**The Logic Tree** is a pictorial representation of a logical process that maps an incident from its occurrence, “the event,” to facts of the incident and the incident’s root causes.



### **Recommended Actions**

1. Anytime a new piece of equipment is brought into use, each employee needs to be trained on its use and how it differs from previous equipment.
2. All new equipment needs to be evaluated under Management of Change standards to assure that they are safe for the operation.
3. A formalized procedure needs to be developed for use of new equipment.

**Education Exercise**

Working in your groups and using the Lessons Learned Statement, Discussion, Analysis and Recommended Actions, answer the two questions below. Your facilitator will give each group an opportunity to share answers with the large group.

1. Give examples of ways to apply the Lessons Learned Statement at your workplace.

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2. Complete the chart below by:

- Putting an "X" beside the recommended actions you think your employer would implement at your workplace.
- Putting an "X" beside the recommended actions you think should be implemented at your workplace.
- Prepare to share with the group the reasons for your answers.

Employer	Recommended Actions	You
	1. Anytime a new piece of equipment is brought into use, each employee needs to be trained on its use and how it differs from previous equipment.	
	2. All new equipment needs to be evaluated under Management of Change standards to assure that they are safe for the operation.	
	3. A formalized procedure needs to be developed for use of new equipment.	



# EVALUATION

## Lessons Learned: New Trailer Hitch Comes Disconnected While Making Turn

Please answer the two questions below:

1. How important is this lessons learned to you and your workplace? (Circle one.) Rate on a scale of 1 to 5, with 5 being the most important.

1	2	3	4	5
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2. What suggestions would you make to improve this Lessons Learned?

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**End of Training Trainer's Instructions**

Please complete the information below.

Trainer's Name \_\_\_\_\_  
(Please Print)

Date of training: \_\_\_\_\_

No. of Participants: Total \_\_\_\_\_ Hourly \_\_\_\_\_ Management \_\_\_\_\_

Location of Training: \_\_\_\_\_

USW Local # \_\_\_\_\_

Send this page **plus the Education Exercise and Evaluation for each participant** to:

**Doug Stephens  
United Steelworkers International Union  
3340 Perimeter Hill Drive  
Nashville TN 37211**

Thank you for facilitating the sharing of this  
Lesson Learned with your coworkers.