Dear workshop manager: Protect your mechanics

The transport industry has been steadily improving its safety record. We deserve to be congratulated on the improved road-safety record and increased workplace health and safety performance – but there is still much further to go.

I recently investigated two different roll-away incidents, both out of the workshop. A man was killed in one and a truck was wrecked in another. How is it possible for modern trucks to roll away? I cannot go into the details of these incidents because they are before the courts, but I do want to consider the safety of road-side mechanics. Mechanics sent to repair a truck on the roadside can face many safety challenges. The question is, how can the mechanic and his employer ensure that the work is done safely? A major part of the answer is preparation beforehand and set procedures that have been well thought through.

If a driver is to help the roadside mechanic, there are important factors to consider. The driver might be asked to operate controls or help position some equipment. Afterall, there is a severe shortage of mechanics and it is often necessary to rely on help. The driver, however, should not be doing mechanical work as their ability to undertake such tasks will be unknown to the mechanic. All that can be assumed is that the driver knows how to operate the controls on the vehicle.

In construction and mining industries, workers must complete a Job Safety Sheet (JSA) before tackling a non-routine task. I have also come across a safety check-list that NSW forensic police officers must fill out before working at an incident. Both these methods are intended to force workers to stop and assess the risks. Do we really need paperwork to repair trucks? Yes.

The below table illustrates this idea. It is a check sheet that guides the mechanic to make safety assessments on site. This table is incomplete, as the idea is that each workshop should develop its own. Hold a safety meeting and get the mechanics to talk about hazards they come across, and discuss ways to reduce the risks. Get the mechanics to own the process. Put the information in a form that they can easily understand and get each mechanic to fill the sheet out onsite before starting work at a roadside breakdown or repair, and collect the sheets. This simple method can be effective if you insist it is done. The danger of not identifying hazards and responding to risks are very high for a workshop or fleet business. The ideas are simple. Identify the hazards, assess the risks, and make sure the precaution taken reduces risk levels to very low. With this method you can also help protect health – the health of your workers and the health of your business!

By Peter Hart
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HAZARD	HOW	RISK LEVEL IN THIS SITUATION	NECESSARY PROTECTION
Road safety risk	Struck by passing vehicle. Dangerous location causes crash. Dark conditions.	High> Stop Mid> Stop Low ——→ Very Low> OK	Put out triangles. Move vehicle. Flashing lights
Truck roll away	Park brakes released for repair. Inadequate wheel chocks. On slope. Heavy truck, bad brakes.	High> Stop Mid> Stop Low ——→ Very Low> OK	Add more effective wheel chocks. Driver stays in the cabin with foot on brakes.
Struck by moving part	Working in engine bay. Part broke off. Vehicle moves unexpectedly. Engine running.	High> Stop Mid> Stop Low ——→ Very Low> OK	Put up a temporary barrier. Stop the engine. Keep out of 'spray line'.
Burnt against hot part	Working near turbo. Fell onto exhaust. Hot oil spray.	High> Stop Mid> Stop Low ——→ Very Low> OK	Put up a temporary barrier. Check oil fitting tightness.

Example of some of the hazards that should be included on a risk assessment sheet for roadside mechanical work.

Load restraint - 5 best practice options

How can we learn, share and ensure adequate load restraint?

The subject of load restraint can mean different things to different people, depending on which part of our large and complex transport supply chain they belong to.

I have been involved with load restraint as a road transport manager for many years and then again while working at the Transport Commission with the load restraint working group subcommittee in the early 90s. I have heard many ongoing comments and criticisms about how complex and confusing the load restraint subject can be.

The Regulations

Comments are made that the load restraint guide has not been updated since 2004, and is therefore out of date? Please understand that the load restraint guide contains Load Restraint Performance Standards (in section F1) that are referred to in National Regulations approved by the Australian Transport Council and adopted by all States and Territories. Each State or Territory legislation picks up the same uniform performance-standard measures in their regulations.

The Performance Standard Measures

All loaded vehicles (above 4.5t) must have the load restrained or contained by a method that will meet the performance standard measures as set out in the Load Restraint Guide 2nd edition 2004.

Every load must be restrained to prevent unacceptable movement, during all expected conditions of transport operation. That is, to hold the load weight of 80% forward – 50% laterally and 20% upwards. The key restraint measure is lashing capacity marked as LC on restraint equipment.

Chain of Responsibility

The transport chain of responsibility (CoR) clearly covers loads, load placement and load restraint and is a major responsibility issue for consignors, packers, loaders, consignees, carriers and drivers.

Safe Place & Safe Systems of Work

National WorkSafe legislation requires employers to provide a safe place of work and safe work procedures. In particular, recent guidance advice has been issued for transport operators and workers using side gates, side curtains, restraint lashings and lashing tensioners in the context of musculoskeletal injuries to the back, shoulders, arms and hands. But personal injuries continue to occur.

Problems & Issues

Common issues emerge right across the range of the transport supply chain including:

1. Different interpretations of what is best practice and whether the restraint method complies or not?
2. The chain of responsibility does not apply to us – we employ carriers, and it is their responsibility. Not true!
3. Item integrity – unit load, pallet, pack, and many other load items and are shipped without the manufacturer/consignor having any idea, or interest about pack or unit integrity? The typical response is, "there are no integrity measures, so we don't know?"
4. Lack of communication between the various parties – consignors, packers, loaders, consignees and unloaders. Side curtains and gates are now common on transport vehicles, but they do not have any load restraint capability unless they have been rated in accordance with the load restraint guide performance measure assessment tests and certified accordingly.
5. The certificate should include a detailed description of the particular loading. For example: pallets, the size and weight, stacking height, and how part loads are to be restrained should be specified.

4 'Best Practice' Suggestions

1. Consignors and manufacturers should carry out a detailed integrity assessment of finished products to be transported.
2. Many container/vehicle rollovers can be traced to gaps between the load and the container or vehicle wall. This allows unwanted load shift when a vehicle is cornering and leads to a container/vehicle rollover accident. There is not a single solution to this problem as much of it requires the pack or pallet size to be increased so as to eliminate all load gaps. Be conscious of this safety risk.
3. Standard operating procedures (SOPs) for a particular commodity require a full and complete assessment process that would include considering pack or pallet integrity, to confirm the required load restraint methods and systems. Load placement and load layout needs to be planned to maximise the carrier's payload. Compare alternative load restraint options. This can often deliver benefits to all parties. Typical examples include using different commodity specific vehicle body types and body features with different load restraint attributes. Such examples are coil cradles, mezzanine floors with locking gates, rated gates and curtains, bolsters and floor posts and removable blocking devices. Benefits include much improved driver times to apply what is typically a superior complying restraint system.
4. Driver training and awareness is of growing concern amongst consignors' with their own delivery fleet and carriers. Ongoing manual handling injuries are occurring where drivers are over-exerting their manual effort in tensioning the restraint systems.

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