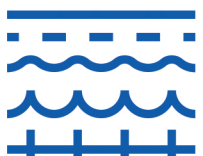


Making the industry safer - Reducing accidents in FVL

2019 incidents & analysis

OCTOBER 2020



ECG

The Association
of European
Vehicle Logistics

About the ECG Health & Safety Working Group

The ECG Health & Safety Working Group (H&S WG) was established in 2018 with the initial focus on safety in road transport and particularly falls from. The objective of the working group is to bring about a mindset change in the Finished Vehicle Logistics (FVL) industry when it comes to driver safety. It is divided into 4 sub-groups.

The key objective of Sub-Group 1 (SG1) in the Health & Safety Working Group is to gather details of **severe accidents**¹ and **near-misses**² in truck transportation and identify safety risk trends in the industry. By identifying key trends, the work of SG1 informs and guides the work carried out by Sub-Groups 1, 2 and 3. A future goal of SG1 is to also share individual reports and analyses of significant accidents which may occur in the industry, so that companies can quickly learn and implement countermeasures.

SG2 is responsible for developing and improving standards for loading and unloading car transporters and produced the [ECG Guidelines - Safe Loading Process](#). SG3, meanwhile, aims at developing standards for a safe environment in hubs & compounds and produced the [ECG Guidelines - Safe Yard Design](#). SG3 is also looking at delivery at retailers to ensure driver safety in this environment. Lastly, SG4 is set-up to risk assess and identify safety features for car transporters.



¹ Accidents are defined as “an occurrence arising out of, or in the course of, work that *does* result in an injury”. Severe accidents are categorized as:

- Fatal (Death of a person).
- Unrecoverable (Amputation, Head trauma with unrecoverable consequences, Permanent damage/loss of eyesight (1 or 2), Serious burns causing permanent scarring).
- Recoverable but Serious (Fractures, Any crush injury to the torso causing damage to internal organs, Non-permanent serious burns including scalding, Any admittance to hospital for more than 24 hours, Cuts if an internal organ or tendon is hurt or in case of hemorrhage, Any loss of consciousness caused by head injury or asphyxia, Electric shock resulting in an injury).

² Near-misses are defined as “an occurrence arising out of, or in the course of, work that *could* result in an injury”.

Summary

To facilitate the work of SG1 on incident reporting one key action was to set up an online database which can be used by all truck operators to report incidents and accidents. 2019 marks the full first year that the ECG Incident Reporting Database has been online and operational.

A total of 85 incidents were uploaded to the database for 2019. This marks a significant improvement from 2018 (the pilot year) – when just 24 incidents were reported – and shows that companies *are* having incidents which the industry can collectively learn from.

However, 85 reports still falls way short of the expected 200+ incidents as estimated by the H&S WG. This number has also been validated through various surveys, interviews and data analyses carried out among ECG Members.

Furthermore, no Unrecoverable or Fatal reports have been uploaded to the ECG database for 2019, despite the WG being aware of several such severe incidents in the period.

Nevertheless, we feel it is timely to issue this analysis of the initial results for the following reasons:

1. To demonstrate to the industry the value of sharing incident reports
2. To emphasise the anonymity in using the website
3. To use the data, we *do* have to proactively tackle some of the risks which we know exist

Related to the latter point in particular, the analysis in this report clearly highlights that failure to follow the 'ECG Safe Loading Guide' is a significant factor in loading/unloading accidents. Consequently, one key conclusion of the report is a recommendation to all truck operators **to fully adopt the [ECG Guidelines - Safe Loading Process](#)**, and to train and audit their drivers in line with this.

In issuing this report, we strongly encourage you to submit incidents from within your own organisation so that we may collectively learn as an industry. It is in everyone's interest to do all we can to improve Health & Safety and to reduce accidents. We strongly believe we should be getting at least 200 submissions per year and unless we capture a majority of incidents, we cannot provide accurate, informative analysis and feedback.

Please encourage your colleagues to support this project via the website here:

reports.ecgassociation.eu

Mike Sturgeon

Executive Director

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1. Overview

85 truck loading/unloading incidents have been reported for 2019, as shown in Fig. 1 below.

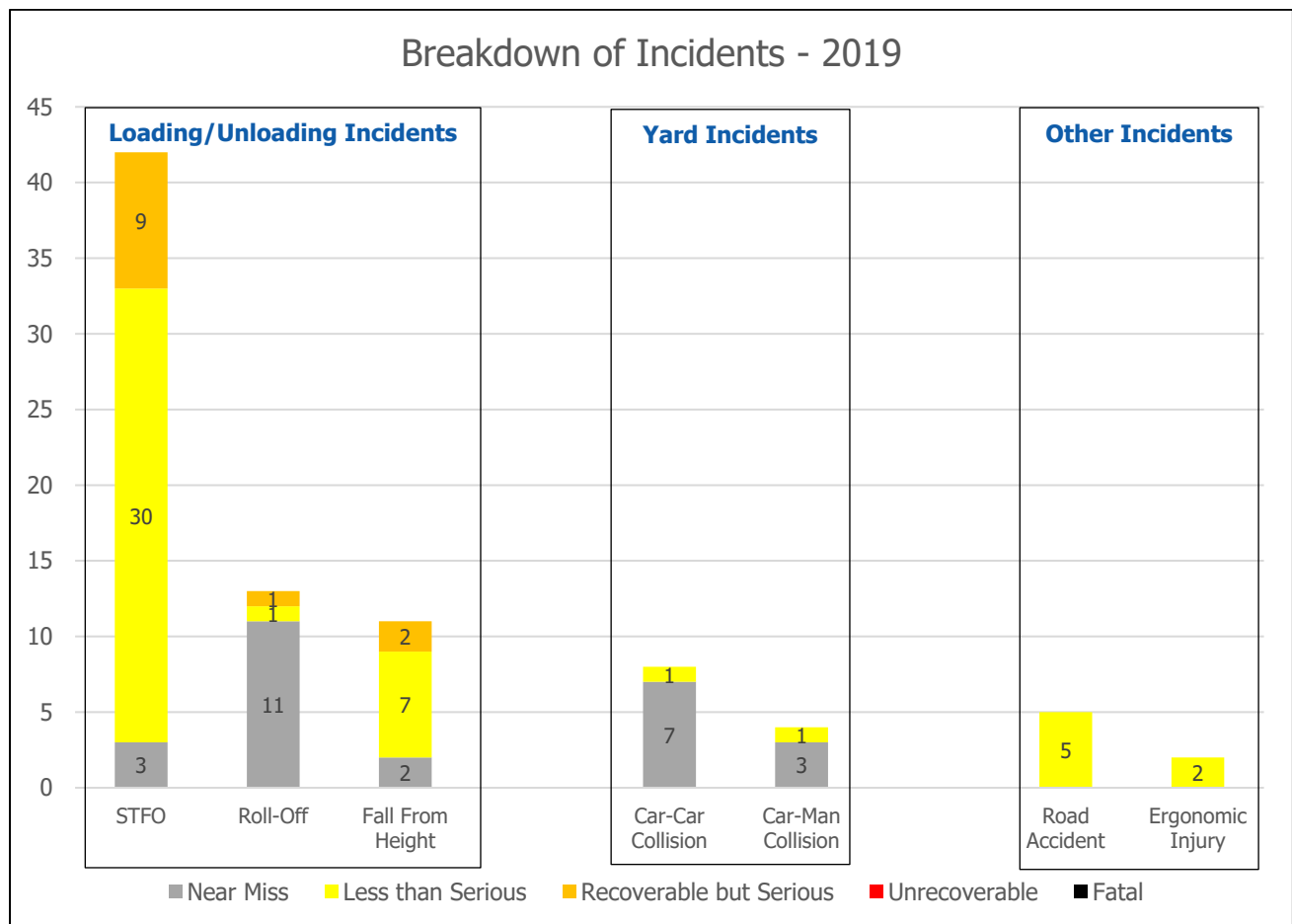


Fig. 1 – Incidents breakdown for 2019

The most common type of incident reported for 2019 is Slips, Trips, Falls and Other personal injuries (STFOs). Of the 42 STFOs in 2019, 9 accidents resulted in 'Recoverable but Serious' injuries, whilst all other injuries were less than serious (21%). The proportion of Serious injuries makes **STFOs the most serious incident category for the incidents reported in 2019**.

Roll-offs are the second most common incident in 2019, followed by Fall from height incidents. The fall from height incidents reported in 2019 led to proportionally more severe injuries than any other category apart from Slip, Trips and Falls (STFs) with 2 'Recoverable but Serious' injuries out of a total of 11 incidents (18%).

There were also 8 car-car and 4 car-man collisions reported in 2019. There was 1 'less than serious' injury in each category. While these incidents did not result in serious injuries, it still highlights the need for yard operator movements and truck driver movements to be segregated by either time and/or space to minimize the risk of car-man/car-car collisions.

Lastly, 5 road accidents and 2 ergonomic injuries were also reported in 2019. All of these 7 resulted in injuries, albeit less than serious, to truck drivers.

1.1 Comparison to 2018 Incidents

Only 24 incidents were uploaded in 2018 therefore it is not possible to do a direct comparison between the reported incidents. Nonetheless, it is possible to do a comparison between the ratios of incidents reported, as shown in Fig. 2a below.

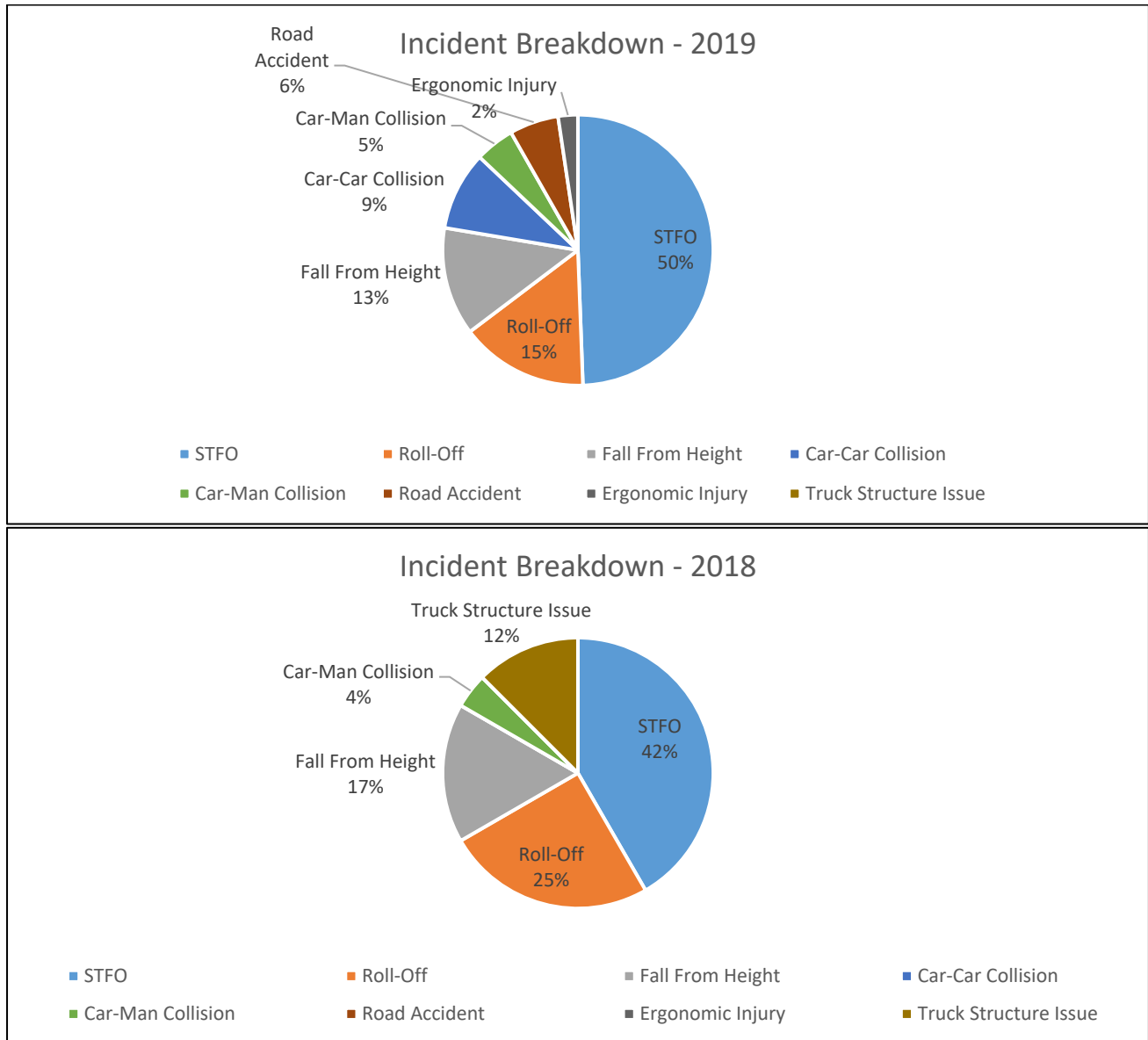


Fig. 2a – Incidents breakdown comparison for 2019 & 2018

The data shown in Fig. 2a, indicates that STFOs *do* constitute the majority of the reported incidents in the FVL industry (~ 45%), followed by roll-offs (~ 20%) and falls from height (~ 15%). The data also indicates that approximately 5% of FVL industry incidents are car-man collisions.

From the graphs above (Fig. 2a), it is not yet possible to reach conclusions on car-car collisions, road accidents and ergonomic injuries as these incidents were only reported in 2019. Similarly, it is not possible to infer any trends related to truck structure-related incidents (e.g. deck collapse/fires) as these were only reported in 2018.

It is also noteworthy to compare the proportions of severe accidents reported in 2018 and 2019 as shown in Fig. 2b below.

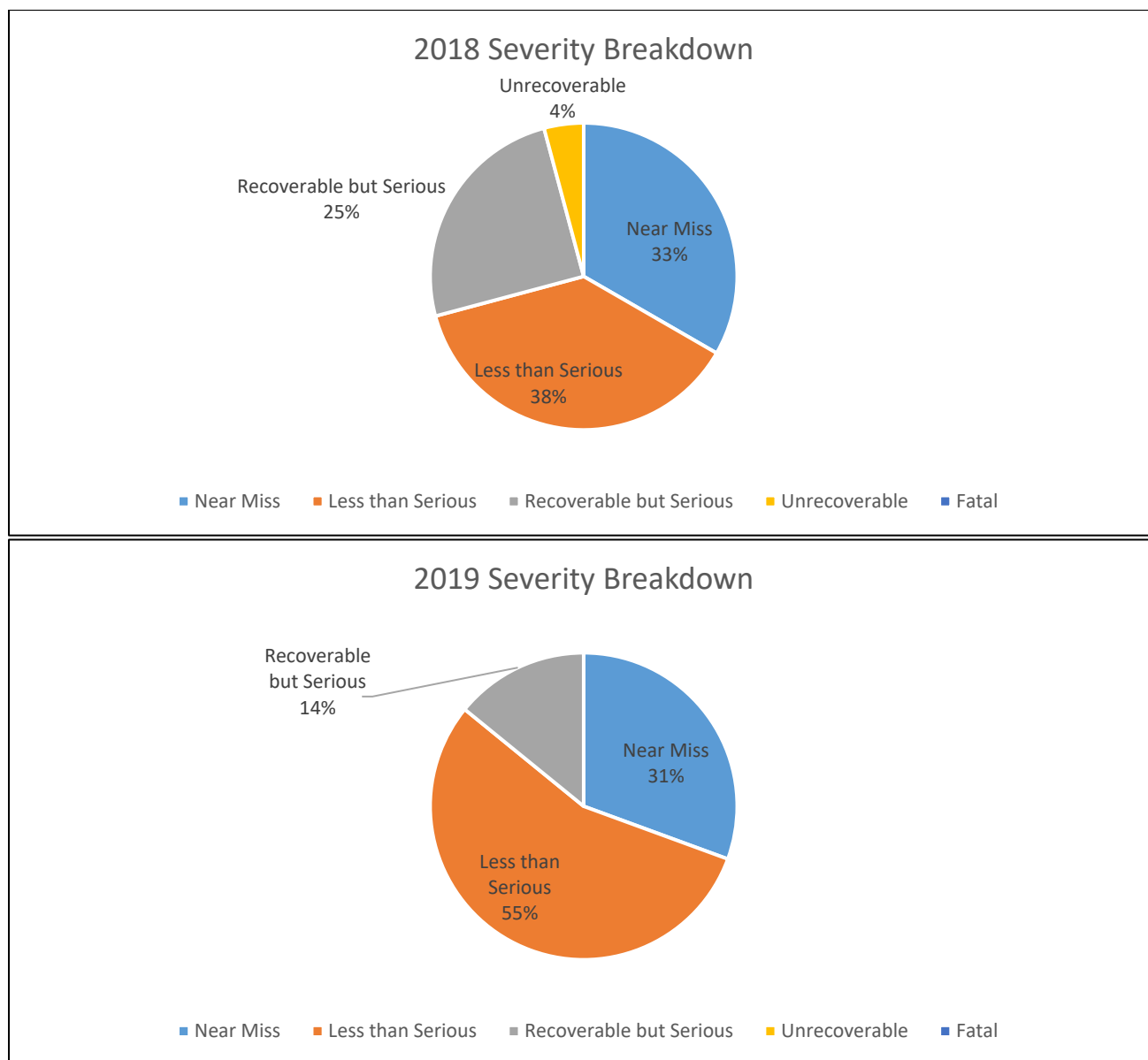


Fig. 2b – Incidents severity comparison for 2019 & 2018

Fig. 2b clearly shows that even though fewer incidents were reported in 2018, a larger proportion of those were more serious than the ones reported in 2019. The proportion of Recoverable but Serious incidents was 11% higher in 2018, and there was also an Unrecoverable incident reported that year.

As mentioned in the summary, it is vital for the industry to continue reporting not only the severe, unrecoverable and fatal incidents but also the near misses, in order to truly understand and avoid future reoccurrences.

2. Breakdown of accidents & high-risk incidents reported from 2019

In 2019, the focus of the analysis is on loading and unloading incidents. The following section provides an in-depth breakdown of the different types of loading and unloading incidents reported.

2.1 Slips, Trips, Falls & Other Personal Injuries

Slips, Trips, Falls³ and Other Personal Injuries (STFOs) cover a broad range of incidents. The first three terms are linked to safe walking behaviour, whilst the latter covers any incidents caused by actions such as improper material handling or improper positioning while manipulating heavy or oddly shaped loads. Unlike roll-offs, most STFOs result in some form of injury: compared to 11 out of 13 near-misses for roll-offs (85%), 39 out of 42 reported STFOs (93%) resulted in injury.

Key Highlights

- 42 STFOs reported: 71% Less than Serious & 21% Recoverable but Serious
 - 19% STFOs (incl. 3 Serious but recoverable) due to tripping on deck surface, lashes, chocks, open drop-holes etc. i.e. linked to poor deck preparation non-compliant with the ECG Guidelines - Safe Loading Process
 - 12% STFOs caused by drivers jumping off decks/ladders non-compliant with the ECG Guidelines - Safe Loading Process
 - 12% STFOs caused by poor environment in the yard (uneven/icy surfaces)
 - Other STFOs caused by material handling (12%), lack of 3 point contact (7%), improper position on decks (7%), mis-stepping (2%), using mobile while walking (2%)
-

Everything taken into consideration, the severity of any injuries arising from STFOs are likely to be less than serious (71%) or in some extreme cases, serious but recoverable (21%). This is a similar trend to 2018 data where 2 of 10 incidents (20%) were serious but recoverable, and 80% were less than serious.

STFOs are particularly common because they can occur anywhere on the truck, and even while working or walking in the yard as shown in Fig. 3 below. A large proportion of these incidents occur on the truck itself due to the uneven surfaces, gaps, holes and loading material on the decks, but prevalent environmental conditions (e.g. ice and snow) can also lead to such events occurring in the yard.

³ For the purposes of this report, a fall from height is when a person falls from a deck or a platform to a lower level. Incidents where the person slips, trips or falls but does not end up on a different level are classified as STFOs.

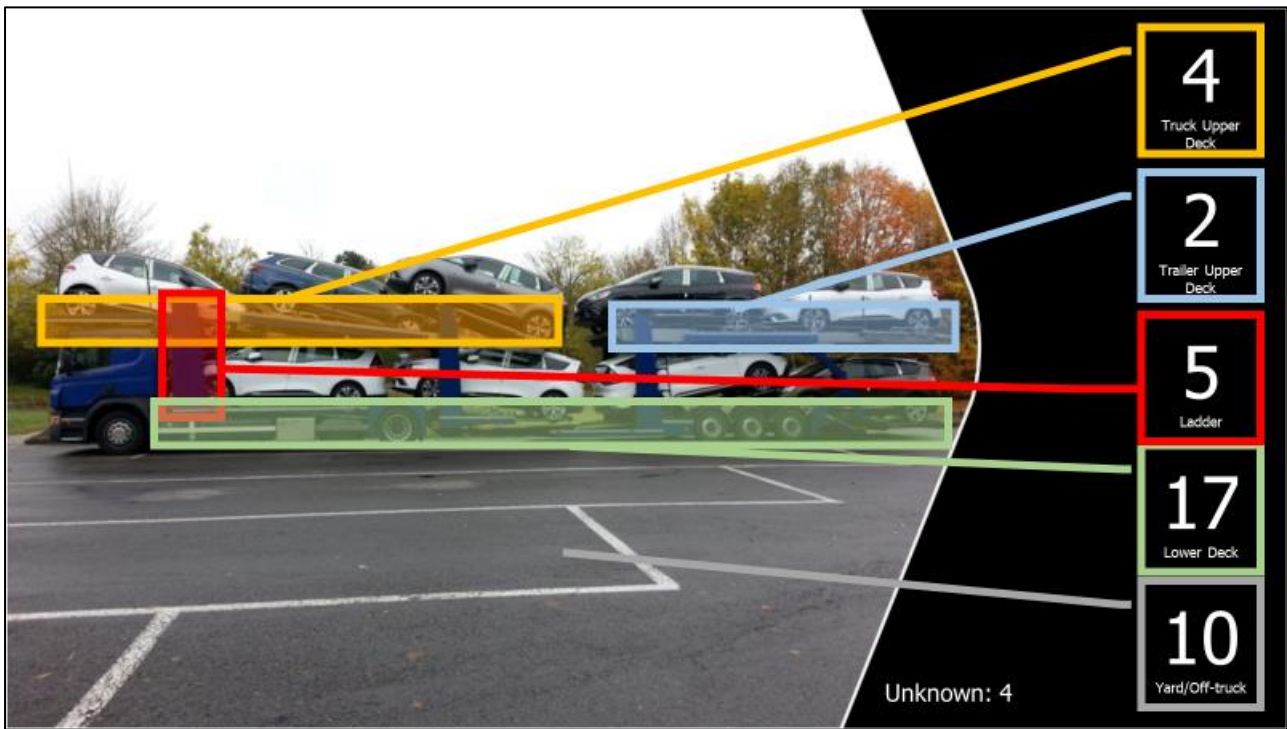


Fig. 3 – The areas where STFOs occurred

2.1.1 What causes STFOs?

From the 2019 data, several factors which cause STFOs can be identified.

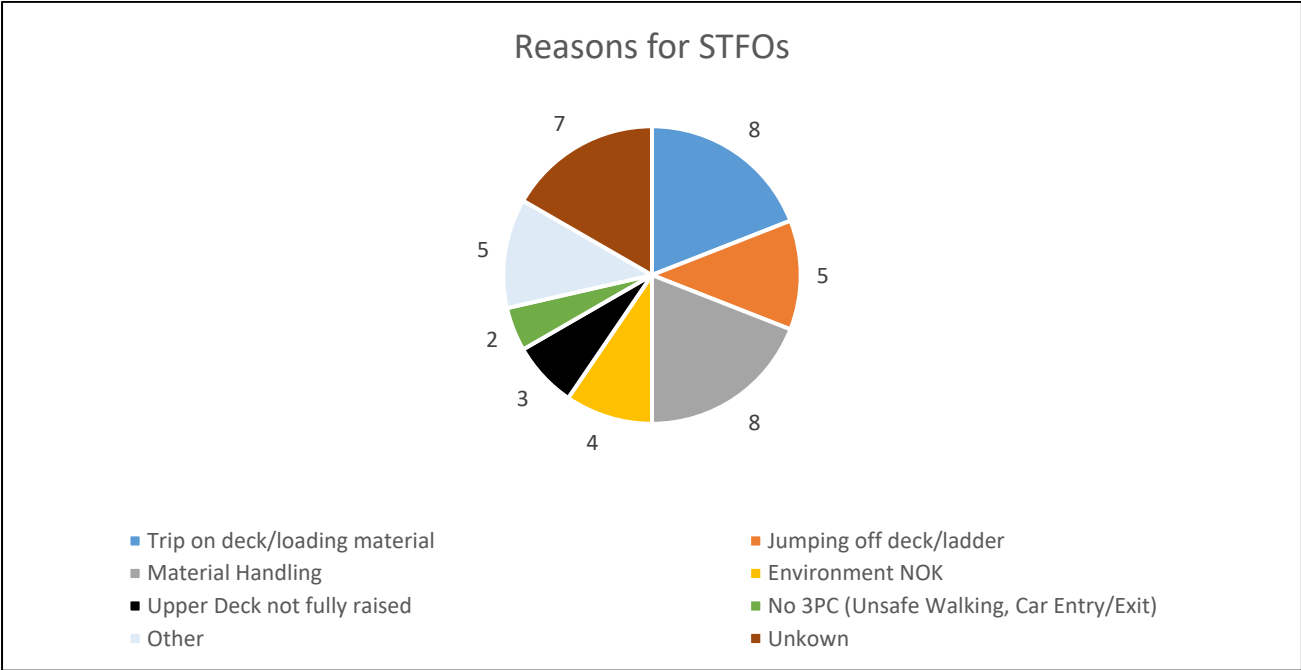


Fig. 4 – The causal factors leading to STFOs

One of the main reasons for STFOs is tripping on decks – in holes, on loading material (e.g. chocks/lashes), gaps – or even between decks. Another causal factor is improper material handling (e.g. handling chocks/lashes and stumbling forward, placing loading ramps incorrectly). These two errors were clear factors in 16 of the 42 (38%) reported incidents.

Drivers working in a rush e.g. jumping off decks and not raising the upper deck fully while working on the lower decks also resulted in several STFOs in 2019. The category “Other” also contains examples of driver indiscipline, such as the use of a mobile phone while walking or missing out steps on ladders while climbing. In total, at least 15 of the 42 (36%) incidents can be attributed to drivers not following safe loading guidelines.

Lastly, as mentioned earlier, poor conditions in the yard (e.g. ice, slippery surfaces or debris lying around) can also lead to STFO incidents. This was the case in 4 (10%) reported incidents from 2019.

2.1.2 Why are STFOs caused?

Broadly speaking, there are two reasons behind STFO incidents:

1. Drivers *think* they are walking safely or handling material correctly, but in fact are doing so in an unsafe manner
2. Drivers make shortcuts because they are in a rush, or because they are distracted

In the first case, the contributory factor is inadequate awareness about the truck/trailer design. For instance, if drivers are not aware of how to correctly adjust deck elements, or which areas of trucks to safely walk on, this creates an increased risk of injury while working.

The second case may influence even highly trained drivers who are well aware of the risks. If, for example, drivers are under time pressure or otherwise distracted, they may resort to moving unsafely around the truck e.g. jumping from decks, not raising decks fully. Over time, if not corrected, this may also become a habit, eventually leading to serious consequences.

Both the above points should be studied further as they provide an insight into driver behaviour.

From the data reported, nearly all the STFO incidents can be linked to non-compliance with the ECG Guidelines - Safe Loading Process. Therefore the best way to reduce STFO incidents is for truck operators to train, audit and supervise drivers in accordance with the ECG Guidelines - Safe Loading Process (which provides clear key-points on how to minimize the risk of such incidents). Involving trailer manufacturers in the training process is also to be encouraged.

2.2 Roll-offs

A roll-off incident is one where a car without a driver rolls off an inclined plane e.g. from an angled truck deck, or from parking on a slope, due to improper parking or securing (chocking/lashing).

Key Highlights

- 13 roll-offs reported: 1 Less than Serious & 1 Serious but Recoverable incident
- 77% of roll-offs involved electronic/automatic parking brake
- 77% of roll offs occurred from Trailer Upper deck
- 100% of roll-offs caused by Lack of 4 Step Parking & Confirmation as explained in the ECG Guidelines - Safe Loading Process
- 69% of roll-offs also had “No lashing before deck manipulation” as a factor as explained in the ECG Guidelines - Safe Loading Process

Of the 13 roll-offs in 2019, 11 were near-misses, 1 caused Less than Serious injuries, and 1 led to recoverable but serious incidents. Each roll-off resulted in a car-car collision, with a high-risk potential for car-man collision as well. This is because cars roll off the back of the truck, through an area where drivers may be working or driving, and often end up colliding with parked cars. Therefore, even though roll-offs have so far not resulted in any serious injuries being reported, the industry needs to take proactive action to prevent this type of incident becoming commonplace over the coming year.

2.2.1 What causes roll-offs?

The first point of analysis is to understand what errors actually cause roll-offs. To do so, we must first consider the recommended safe loading process of ECG Guidelines - Safe Loading Process and shown in Fig. 5:

CORRECT PROCESS FOR LOADING ON TRUCKS						
Deck	Deck	Ground	Deck	Ground	Deck	Ground
1 Drive car on to deck	2 Apply 4-Step Parking Process (parking brake + gear/engine)	3 Chock & lash fixed Axle	4 Release brake and gear	5 Manipulate deck	6 Reapply 4-Step Parking Process	7 Final chock & Lashes

Fig. 5 – The steps to safely loading & securing a car on deck

Roll-offs primarily occur due to errors at three different stages:

1. At Step 2: Loading car, and exiting without applying parking brake and/or engaging gear in “Park” mode: this error leads to a car immediately rolling off upon exiting with a high risk of car-man collision on angled decks; this error also led to a fall from height incident in 2018,

whereby a rolling car caused a driver to squeeze against, and fall-over safety rails on the trailer upper deck.

2. At Step 3: Forgetting to chock AND lash a fixed axle before releasing the car for deck manipulation: this error leads to cars rolling-off during deck manipulation as the wheels pop-out of drop-holes, or even go over chocks. This error occurs during the loading process.
3. At Step 6: Forgetting to get back in the car to re-apply the parking brake and/or engage gear in “Park” mode: this error leads to roll-offs during unloading.

The incidents reported in 2019 indicates that in all 13 cases, the drivers made an error at either Step 2 or Step 6, the application, or reapplication of the so-called **4-Step Parking Process (Gear – Brake – Confirm – Engine)**.

Of these 13 cases, 9 incidents were during loading. In each of these 9 loading incidents, the drivers made an *additional* error by not following Step 3 (chocking & lashing a fixed axle) before starting to adjust/manipulate the deck. Interestingly in at least 5 of these incidents, the drivers stated that they had applied the gear and brake but admitted not confirming the status before exiting the car. This gave them false confidence to proceed with deck manipulation without applying a lash.

Of the remaining 4 roll-off cases, 2 occurred during unloading. In these 2 cases, the driver removed the chocks and lashes to unload the car, and the car rolled off whilst narrowly missing the drivers’ hands. These roll-offs occurred before the drivers had manipulated the decks correctly during loading (i.e. after applying a lash) but forgot to get in the car and re-apply 4-Step Parking Process (4SPP) after the manipulation. This meant that once the lashes and chocks were removed, the axle was free to move.

The last 2 cases occurred in the yard on sloping ground, after drivers parked their cars post-unloading. In both cases, the drivers simply did not pay attention and exited the car without 4SPP, causing it to roll-off once they stepped away from it.

From the above points, it is clear that there is a strong need to ensure that drivers properly secure their cars using the parking brake, gear, chocks and lashes – particularly if they intend to manipulate the deck. It is also important to confirm that cars are secured before, during and after deck manipulation.

2.2.2 Why do roll-offs occur?

While the above points tell us *how* roll-offs occur, they do not explain why they occur. However, in analysing the reported roll-offs further, two trends are interesting to note:

1. In 2019, 10 of the 13 (77%) cars involved in roll-offs were Electronic Parking Brake (EPB) type cars; this is similar to data from 2018 where 5 of 6 reported roll-offs (83%) involved EPB cars.
2. In 2019, it was reported that 10 of the 13 cars rolled-off from the trailer upper deck (77%); this too is similar to data from 2018, when 5 of 6 reported roll-offs (83%) also originated from the trailer upper deck.

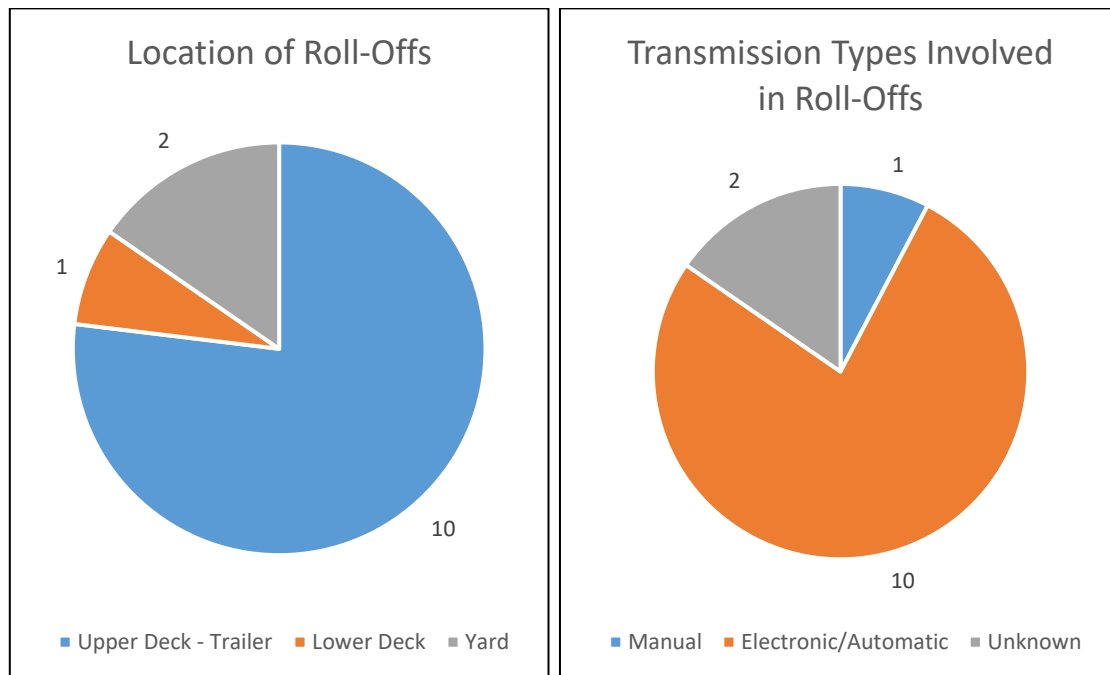


Fig. 6 – Trends in roll-off incidents: location and transmission

Is EPB contributing to increasing roll-offs?

The way that EPBs work may offer an indication as to why such systems may lead to an increase in the number of roll-offs.

Previously, drivers parking their cars on trucks had to perform two separate actions to ensure their cars were secure: namely, putting the gear in “Park” position (or 1st position for manual systems) AND physically applying a hand-brake or a foot-brake. With the introduction of EPBs, however, drivers know that putting the gear in “Park” engages the electronic brake automatically, meaning they often do one action less. The problem with this is that if the gear is not actually properly applied (e.g. left on “Reverse” position instead of “Parking” because the driver may not be paying attention), this means that neither axle is locked, and the car is at risk of rolling-off. This would not have been a problem before because, in all likelihood, if the gear was not properly engaged, drivers would have in any case pulled on a traditional hand brake, securing the rear axle.

In other words, EPBs may lead to complacency amongst drivers which in turn may contribute to an increase in roll-offs. **This point merits further investigation by the industry.**

Why is the trailer upper deck a problem?

The 1st position on the trailer deck is one of the highest risk positions for loading, on a par, or just behind the 1st position on the truck upper deck. In this position, the decks and cars need to be positioned just right: if a car or deck is too far ahead, it may lead to problems during transport while the truck is turning and manoeuvring; if the deck is too far back, there may not be enough room to load the optimum/desired number of cars, with the required clearances. It may be difficult to prepare the deck correctly, without actually having a loaded car on this position.

This means that cars loaded in position 1 on the trailer are more likely to be adjusted after being loaded than perhaps in any other position. This may explain why roll-offs are relatively higher from this position, but as with the EPB question, **this point also warrants further investigation.**

As a concluding remark, it should be highlighted that all roll-offs reported can be linked to non-compliance with the ECG Guidelines - Safe Loading Process. As with STFOs, therefore, the risk of roll-offs may be mitigated by training, auditing and supervising drivers in accordance with the ECG Guidelines - Safe Loading Process.

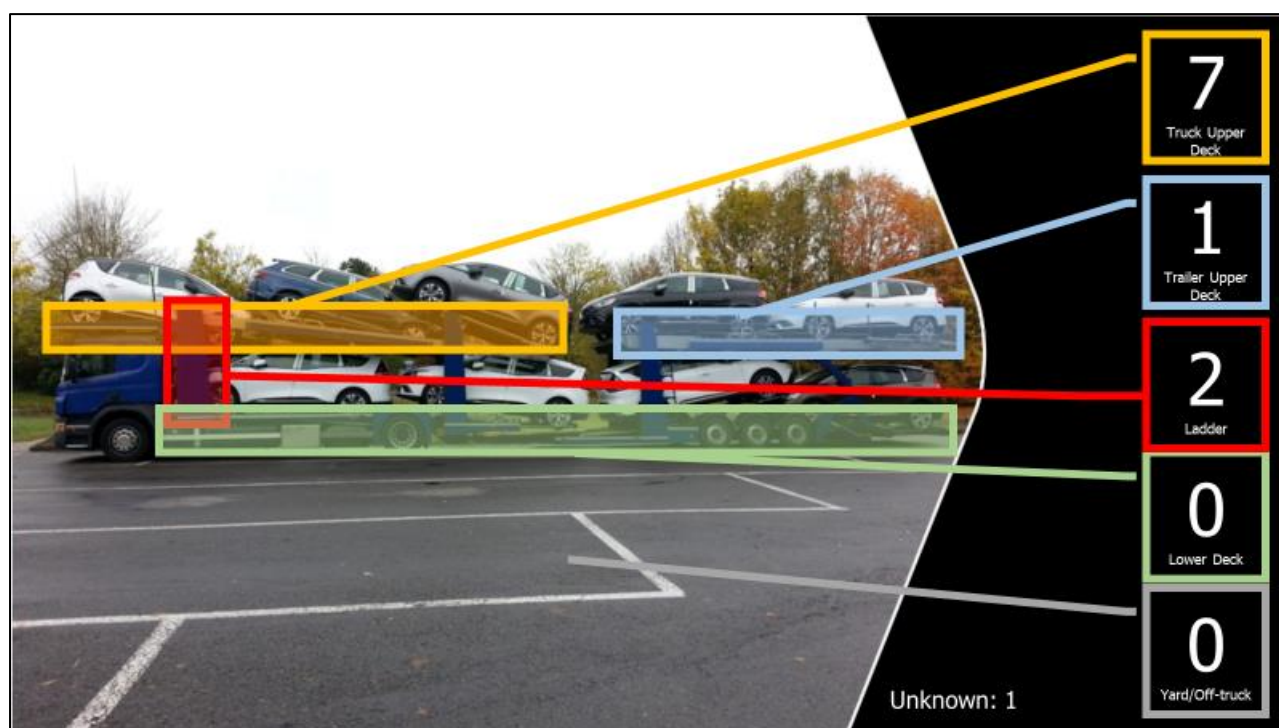
2.3 Falls from height

Falls from height are typically considered to be one of the most serious incidents in the FVL industry. Truck drivers regularly work at height⁴ without external protection such as safety harnesses and rely on truck safety rails as their primary barrier to prevent such incidents (which have also sometimes proven to be tragically inadequate).

Key Highlights

- 11 falls from height reported: 7 Less than Serious & 2 Recoverable but Serious
- 63% falls due to lack of 3 Points of Contact (3PC) while exiting/entering car or walking on deck
- 18% falls due to safety rail failure
- 63% falls from truck upper deck, 18% from ladders, 9% from trailer upper deck (1 case is unknown)

Given the nature of the incident, falls from height occur primarily from the upper deck or from side ladders. Of the 11 reported fall incidents in 2019, 7 occurred from the Truck Upper Deck, 1 from the Trailer Upper Deck and 2 from the side ladders as shown in Fig. 7 below.



⁴ The legal limit for defining the “height” for “fall from height” incidents is different across countries.

Fig. 7 – The areas where falls from height occurred from

Falls from height can be fatal or lead to unrecoverable injuries. Fortunately, none of the falls from height reported for 2019 led to unrecoverable or fatal injuries (however 1 fall from height from 2018 did result in an unrecoverable injury to the driver). Nevertheless, falls from height are a real safety concern for the industry and will remain so until significant breakthroughs which eliminate the height risks in both compounds and at retailers.

2.3.1 What causes falls from height?

From the 2019 data on falls from height, 2 factors which contribute to this type of incident can be identified:

1. Unsafe driver movement (lack of 3PC while walking, or when entering/exiting cars)
2. Structural failure (of safety rail wires or poles)

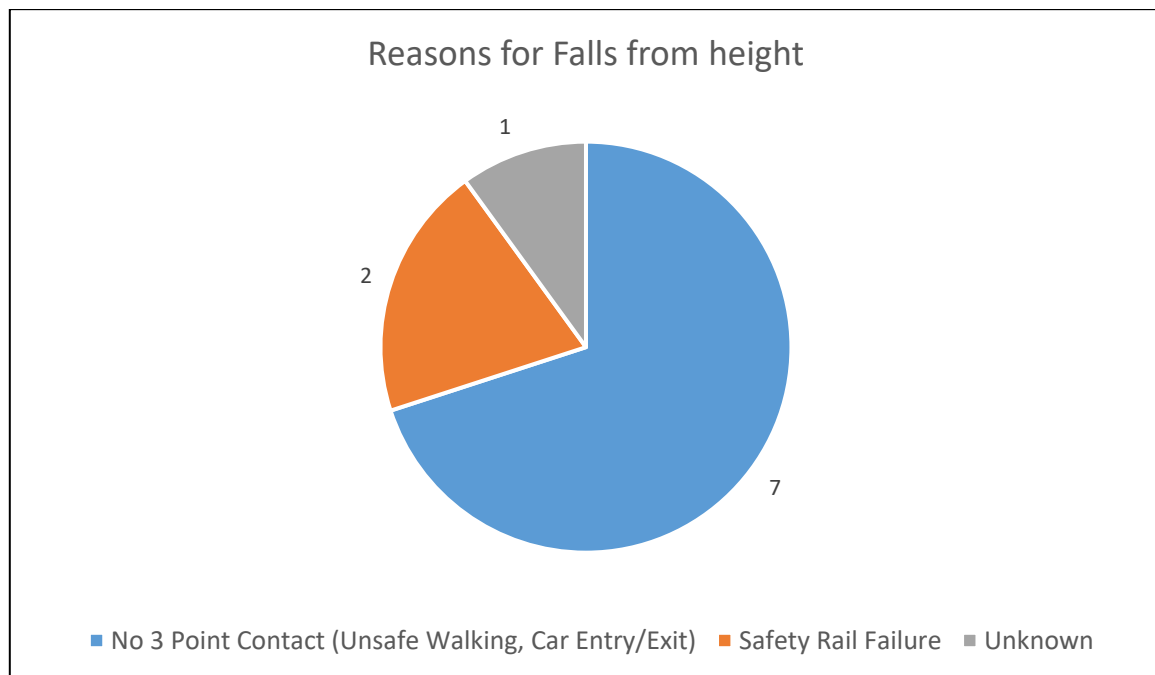


Fig. 8 – The reasons contributing to falls from height

The way that drivers move and behave on the upper deck can be a crucial factor in falls from height.

7 incidents reported in 2019 indicate a lack of 3PC as the causal factor for falls from height (1 such case was also reported in 2018):

1. In 4 of these incidents, the drivers were walking on the deck when they stumbled and fell through a gap in the safety rails;
2. In the remaining 3, the drivers were exiting cars on the upper deck when they stumbled backwards or sideways through a gap in the upper deck;

Structural failure, as mentioned above, is another contributory factor towards falls from height. Safety rails have been known to fail, truck drivers sometimes remove safety rails to load wider/larger cars, and some positions on the truck upper deck may not be covered by safety rails at all to allow deck adjustment. Indeed, of the 4 falls from height incidents reported in 2018, 3 (75%) were linked

to the failure of either safety poles or the safety wires (cables) on the truck upper deck. The exact act being carried out during failure varied from case to case, see examples here:

1. Case 1: driver exited a car and leaned on the pole in front of him, causing the pole to fail
2. Case 2: driver leaned against the safety cables after exiting car, causing the cables to snap
3. Case 3: driver stood up after lashing and the leant against the pole, causing it to fail

By contrast, in 2019, only 2 of the 11 (18%) reported cases are related to safety rail failures. In both cases, the safety cable snapped after a driver leant on it while moving around a car on the upper deck. **Notably, both safety rail failures in 2019 involved a “continuous-loop” type wire (instead of a safety rail with 4 individual wires).**

Two points merit further investigation:

1. **The maintenance records of each pole** including dates, and whether or not it was maintained by a trailer-manufacturer approved workshop
2. **The design of the poles and cables** with a particular focus on the weight and load restrictions

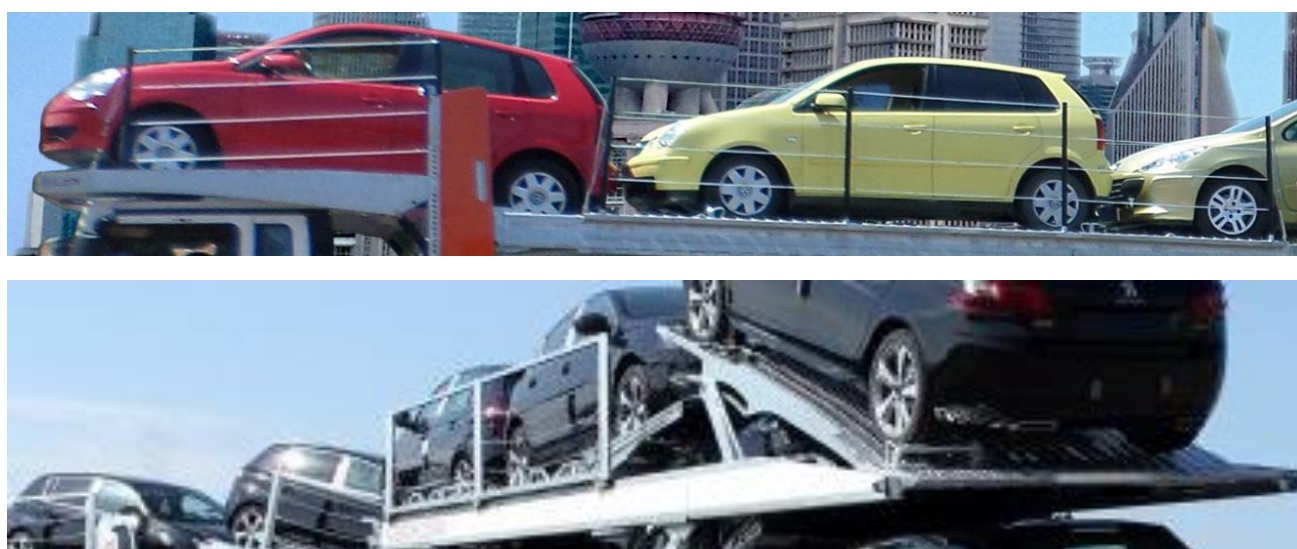


Fig. 9 – “Continuous wire” safety rail (top) vs 4 individual wire rail (bottom)

2.3.2 Why do falls from height occur?

As discussed in the previous section, drivers leaning on safety rails/posts or not maintaining 3PC are the two main contributors to falls from height. Effectively, in the former case, drivers fell because they stumbled and grabbed the wrong component whilst in the latter, the fall was caused by the drivers stumbling but not grabbing anything at all.

Clearly, there are two points to investigate further:

1. **How can the design of car transporters be improved** so that drivers have something safe to grab in every position if they stumble or trip? And if there are already safe areas to hold, can they be highlighted better?
2. **How can drivers be prevented from stumbling or losing their footing** in the first place?

For the latter question, it is also interesting to further explore **why drivers stumble**. A clear reason of course is the unevenness of the decks and the presence of loading material by their feet. Furthermore, the risk of stumbling or losing footing is becoming an increasing concern as cars are getting larger, but the truck widths are still restricted by EU regulations; this means that truck drivers often have to squeeze in or out of cars, with little to no visibility of where their feet are. It also makes it easy to step-off the edge as there is such little room on the platform to stand without damaging the car.

As with STFOs and roll-offs, an additional contributory factor towards falls from height is non-compliance with the ECG Guidelines - Safe Loading Process (e.g. exiting car with 3PC). Therefore, the risk of falls from height may also be mitigated by training, auditing and supervising drivers in accordance with the ECG Guidelines - Safe Loading Process until breakthroughs in trailer design or the loading/unloading process are achieved.

3. Summary points for the industry

In this section, we provide a set of recommendations for the different stakeholders in the FVL industry (based on the 2019 incidents reported), as well as some brief concluding remarks.

3.1 Key recommendations

3.1.1 Method/man

A key finding is that non-compliance with the *ECG Guidelines - Safe Loading Process* contribute to all three types of loading/unloading accidents reported in 2019, namely STFOs, Roll-offs and Falls from Height. **It is therefore vital to ensure that all LSPs adopt the Guidelines to train and audit their drivers against some key-points** (some of which are listed below as examples)

1. For STFOs, the Guidelines clearly specify:
 - a. the importance of preparing decks correctly to minimize walking on decks and trip hazards on decks
 - b. the need to consult transporters manufacturers' manuals and identifying the correct walking path(s) up and down a deck to minimize slip and trip risks
 - c. the importance of not running/jumping and always maintaining 3PC
2. Similarly, for roll-offs, the Guidelines highlight:
 - a. the importance of getting familiar with cars that drivers may not have handled before
 - b. the significance of the 4 Step Parking Process
 - c. the absolute need to lash a fixed axle of a loaded car before manoeuvring a deck
3. Lastly, for falls from height, the Guidelines recommend:
 - a. the importance of working as much as possible from the ground up; if lashing is not possible from the ground (only for truck upper deck units) then making sure that drivers stand in a safe position (entirely between safety rails)
 - b. the need to lower the deck as much as possible to minimize fall-off height and severity
 - c. the need to maintain 3PC as much as possible
 - d. the significance of being aware of surroundings to avoid missteps and stumbling
 - e. the audit of trucks to ensure all safety rails are installed and damage free (and prohibiting/restricting loading if that is not the case)

The Guidelines have been designed to mitigate the very risks highlighted in this report, and all truck operators are encouraged to implement these Guidelines as quickly as possible to mitigate any further risks of loading/unloading accidents.

3.1.2 Machine

A second key finding linked to STFOs and falls from height in particular, is that the **industry must work collectively towards finding breakthrough solutions**. Together with the trailer manufacturers, the LSPs and OEMs should investigate safer design of trailer structures including safety rails and poles.

Additionally, the industry should also explore the use of marking and visualizations on car transporters to better visualize hazards (e.g. no-step points, no-hold points) as well as safe areas for walking and working.

3.1.3 Environment

While this report does not contain an in-depth analysis of yard accidents, it is pertinent to remind the readers of the importance of ensuring a safe environment for drivers.

To minimize the risk of car-car/car-man collisions, hub operators should follow the recommendations of the [ECG Guidelines - Safe Yard Design](#) including:

- a. Ensuring that loading areas are adequately spaced and correctly marked (to give enough space around trucks for safe walking and working)
- b. Ensuring loading and walking areas are regularly cleaned (and de-iced in winter) to prevent STFOs in the yard

3.2 Concluding remarks

The report highlights the fact that the FVL industry involves complex operations and significant safety risks. By combining the knowledge from different LSPs, OEMs and even trailer manufacturers, we can identify common factors in accidents, and work together as an industry to eliminate these risks.

In order to ensure that we share information adequately, it is **vital that we report our incidents – both severe accidents and near misses** – with as much detail as possible. Then, and only then, can we identify breakthrough solutions, and move towards safer, more efficient operations.

In addition to incident reporting, it is also **crucial for the industry to work towards adopting the ECG Guidelines - Safe Loading Process**. These Guidelines (developed through a consensus of drivers and trainers from a number of LSPs) contain clear key-points which can directly help to mitigate the risk of loading/unloading accidents. Indeed, many of the incidents reported in 2019 could have been avoided by following the key-points contained within the Guidelines. We therefore urge all operators to implement the Guidelines and use them to set a standard for training, auditing and supervision of drivers to ensure safety for everyone involved in our complex operations.



Glossary

3 Points of Contact	3PC
4-Step Parking Process	4SPP
Electronic Parking Brake	EPB
Finished Vehicle Logistics	FVL
Health & Safety Working Group	H&S WG
Logistics Service Provider	LSP
Original Equipment Manufacturer	OEM
Slips, Trips and Falls	STFs
Slips, Trips, Falls and Other personal injuries	STFOs
Sub-Group	SG