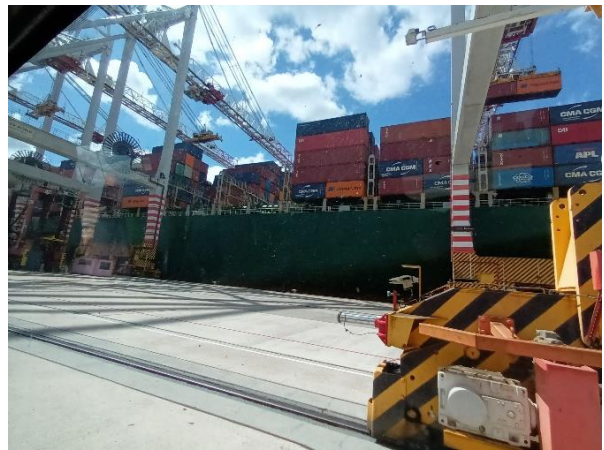




**PORT SKILLS  
& SAFETY**

IMPROVING STANDARDS THROUGH COLLABORATION

# Port Industry Health and Safety Statistics 2023



Collated by F3L Health/Safety/Environment



Health/Safety/Environment

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## QUICK LOOK

| Metric   | Change |
|--|--------|
| <ul style="list-style-type: none"> <li>Data coverage: Data supplied from 23 contributing members. There was an average of 18,245 workers (direct and indirect employees) from all contributing members, higher than 2022 (2022: average 14,589 direct and indirect employees)</li> </ul> | ▲ 22%  |
| <ul style="list-style-type: none"> <li>0 fatalities reported from contributing members. However, 1 indirect employee fatality known during unloading of bulk carrier in port. (0 in 2022)</li> </ul>   | —      |
| <ul style="list-style-type: none"> <li>193 Lost Time Injuries (LTI) in 2023 (237 in 2022)</li> </ul>   | ▼ 19%  |
| <ul style="list-style-type: none"> <li>Lost Time Injury Rate per 100 workers = 1.05. (1.59 in 2022)</li> </ul>   | ▼ 34%  |
| <ul style="list-style-type: none"> <li>Lost Time Injury Frequency Rate (LTIFR) per 1 million work hours (direct and indirect workers) = 5.41 (7.36 in 2022)</li> </ul>   | ▼ 28%  |
| <ul style="list-style-type: none"> <li>Total Injury Rate (TIR) per 1 million work hours (direct and indirect workers) = 6.92 (Not recorded in 2022)</li> </ul>   | —      |
| <ul style="list-style-type: none"> <li>RIDDOR total reportable incidents = 106 (91 in 2022)</li> </ul>   | ▲ 16%  |
| <ul style="list-style-type: none"> <li>RIDDOR Over 7 Day Absences = 85 (Not differentiated in 2022)</li> </ul>   | —      |
| <ul style="list-style-type: none"> <li>RIDDOR Specified Injuries = 21 (Not recorded in 2022)</li> </ul>  | —      |
| <ul style="list-style-type: none"> <li>Total RIDDOR Report Incidence Rate per 100 workers = 0.58 (0.61 in 2022)</li> </ul>   | ▼ 5%   |
| <ul style="list-style-type: none"> <li>74 High Potential Incidents (HiPo) Incidents in 2023 (54 in 2022)</li> </ul>  | ▲ 37%  |

- **Top five incident locations** for reported lost time injuries were:

**2023**

- Berth/Quay alongside vessel
- Ship – Container
- Other location
- Roadway/parking area – with public access
- Open storage area

**2022**

- Berth/Quay – alongside vessel
- Ship – Container
- Roadways/parking areas
- Engineering works and stores
- Shed or warehouse

- **Top five immediate cause** categories for lost time injuries were:

**2023**

- Slipped, tripped, or fell on same level
- Injured whilst handling, lifting, or carrying
- Another type of accident
- Hit by moving, flying, or falling object
- Caught between objects (e.g. nips of fingers/hands)

**2022**

- Slipped, tripped, or fell on same level.
- Hit by moving, flying, or falling object.
- Injured whilst handling, lifting, or carrying.
- Driving related incidents.
- Another type of incident (non-specific).

- **Top five body parts** reported as injured were:

**2023**

- Torso (previously included 'Back', now separate)
- Legs
- Fingers
- Heads
- Hands

**2022**

- Legs
- Torso
- Head
- Fingers
- Feet

## FATALITIES

In July 2023, Aberdeen South Harbour, while unloading a bulk carrier at the dock an indirect employee was fatally wounded and died at the scene. This was not recorded on the dashboard as the port operator only provides statistics for direct employees.



## SUMMARY AND LOOK AHEAD

### 2023 SUMMARY

In 2023, data was received from 23 contributing members, of which 20 members provided full data submissions for 2023. Three members did not submit complete data and two members withdrew from the benchmarking exercise (one of those did not submit full data). **Data is vital; without it PSS cannot effectively assess industry wide performance, identify trends or measure improvements. PSS members are encouraged to submit data.**

Among the contributing members, there were 1163 near miss incidents recorded, with 371 of them considered high potential incidents that could have resulted in serious injuries. The top five reported potential cause categories for near miss incidents were related to driving incidents, non-specific incidents, being hit by objects or vehicles, and slip, trip, and fall incidents.

There were 13,200 health and safety observations recorded in 2023, which was higher than 2022, but the previous two years total observations have been considerably below observations recorded in 2021 (18,400 observations). **These observations play a crucial role in proactive risk management and preventing workplace incidents and are crucial part of proactive risk management strategies.**

There were 193 Lost Time Injuries (LTIs) reported in 2023, showing a 19% reduction compared to 2022. The LTI rate per 100 workers (historical metric) also decreased by 34% in 2023.

The total number of RIDDOR reportable incidents increased by 16% in 2023 compared to 2022. However, when considering total RIDDOR incidents per 100 workers (historical metric), there was a 5% reduction in total report RIDDOR incidents in 2023. RIDDOR incidents have been broken down for 2023 for the first time since 2018. There were 85 RIDDOR over 7-day injuries, 21 RIDDOR specified injuries and one occupational illness (HAVS) reported in 2023. There were 10 RIDDOR dangerous occurrences reported in 2023.

In terms of lost days and severity, there were a total of 2076 lost days' work from 193 LTIs in 2023, and the LTI Severity Rate was 10.76 days per LTI. The combined Lost Time Injury Frequency Rate (LTIFR) per million work hours (direct and indirect employees combined) decreased from 7.36 in 2022 to 5.41 in 2023.

The Total Incident Rate (TIR), a measure of reported incidents per 100,000 workers, was introduced in 2023. The TIR for 2023, for all workers combined (direct and indirect employees) was 6.92 per million hours worked.

The most common incident locations were berth/quayside/alongside a vessel, container ships, and roadways/parking areas with public access. The top five immediate causes in 2023 included slipping, tripping, or falling on the same level, injuries while handling or carrying, and being hit by moving objects.

The most frequently injured body parts in the port industry in 2023 were the torso, legs, fingers, head, and ankles. Notably, slipping, tripping, and falling incidents accounted for a significant number of ankle, leg, and torso injuries.

Data from contributing members continues to highlight slips, trips and falls on the same level (access/egress) and work on container ships as key areas requiring targeted risk management strategies. The former would appear to be innocuous on face value but contributes to the largest proportion of incidents which are severe enough to result in lost time injuries and has done nearly all previous years. The root causes for these will vary and this data is not available, but the figures indicate more work is required to manage these risks. Both have their unique challenges and opportunities and there are no simple solutions for all. Section 5 includes some risk factors to review and consider relevant to slip, trip and fall incidents.

PSS will support this area of focus by prioritising critical reviews of relevant Safety in Port (SiP) guides to ensure these are fit for purpose. These include:

- SiP001 - Guidance on Port and Terminal Planning (Workplace Transport).
- SiP014 - Guidance on Safe Access and Egress.

In 2023, overall LTIs and LTI rates reduced but the potential of reported incidents appears to have increased. Incidents flagged as 'High Potential (HiPo)' increased by 37%. This should drive investigation commensurate with the highest potential of these incidents. That in turn should drive actions to proactively prevent any of these higher potential incidents reaching that potential.

Critical review of the supporting PSS Safety in Port (SiP) documents and accompanying incident data in these areas is recommended and aligns with the PSS strategic objective of '*improving UK port safety guidance*' by updating Safety in Port (SiP) documents. This should also be done in conjunction with specific reviews at respective members sites. Success in enhanced risk management within these two key areas would significantly reduce total incidents across the port sector.

## PSS DATA WORKSHOP

A second PSS data workshop was held in London (and Teams) in Q4 2023. This was another opportunity to bring together contributing members to review and discuss progress and development of the benchmarking dashboard, plus identify any areas for improvement or further development.

Safety in Port (SiP) guidance documents have been added onto the dashboard with direct hyperlinks to the content. They are accessed from the same page as PSS Safety Alerts.

The data collection sheet was updated with some minor developments. This included the addition of a new column and drop-down list to select a relevant SiP on the incident and near miss tabs. Data validation rules were also added to reduce errors in the submitted data.

There was some discussion around potential additional metrics, such as productivity metrics, which were highlighted as potential future development areas, but these were all ruled out following active discussions.

The potential addition of specific port types/modes was discussed to enable easier comparison between ports of the same types. This was achieved using existing location data and additional 'location' data slicers.

## Removal of Anonymity

A notice of intent for removal of anonymity from the dashboard was sent to all contributing members in Q4 2023. Members were to raise objections if they did not agree to this. 22 contributing members agreed to remove anonymity and one did not. The dashboard was switched from code numbers to contributing members in Q1 2024 except for one member which retains their code number.



## INNOVATION - ARTIFICIAL INTELLIGENCE AND NATURAL LANGUAGE PROCESSING

One of the PSS core values is to '*inspire Innovation*' to promotes continuous improvement. As part of this a pilot exercise was setup in 2023 between STC-Insiso and three existing contributing member ports. The project objectives were to receive raw, anonymised, incident and investigation data from these members and then use artificial intelligence (AI) and natural language processing (NLP) to extract trends and insights for action This was done via COMET (previously known as STC Insiso) software solution *COMET Signals*. This pilot and planned expansion aligns with the PSS strategic objective of '*improving UK port safety statistics.*'

AI can analyse tens of thousands of records to recognise industry specific terminology and extract unseen conclusions from the patterns that emerge in natural language. Findings are then displayed, suggesting areas for improvement, and enabling HSE professionals to be respond more proactively than reactively.

COMET Signals uses Natural Language Processing (NLP) to perform analysis on the free text description of incidents or events. This allows insight of systematic issues, hotspots, trends, and typical root cause categorisation to be derived from the free text held in incident reports, near misses and observations. This in turn allows preventive actions to be identified, applied, and tracked.

Feedback from the pilot study was positive and demonstrations of the insights available in the COMET Signals software were encouraging. PSS and COMET plan to further progress this in 2024. This evolution to a new data collection and data analysis model will lead to some interesting data insights and opportunities for contributing members, in particular actionable root cause data.

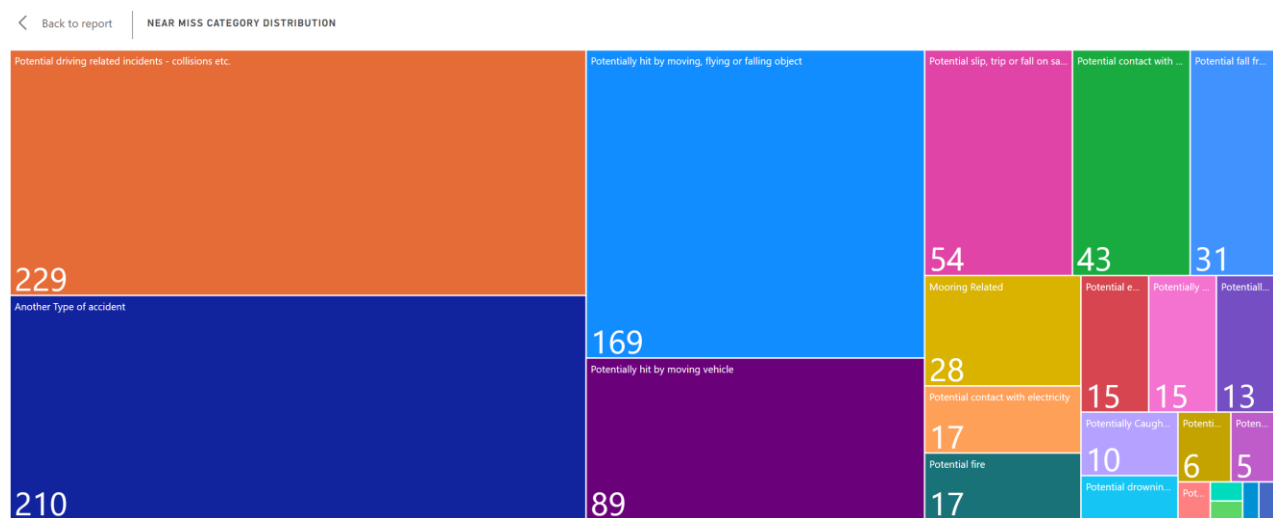
For more information and analysis of this pilot project see: [PSS calls for sector improvements to data collection.](#)



## SECTION 1 – LEADING INDICATORS

There were 1,163 near miss incidents recorded in 2023 from 20 contributing members. It should be noted that some contributing members do not report near misses, and others report only the most significant NMI, rather than all. Of these, 371 were considered as high potential NMI i.e. under different circumstances these may have led to serious, potentially life threatening or life changing injuries.

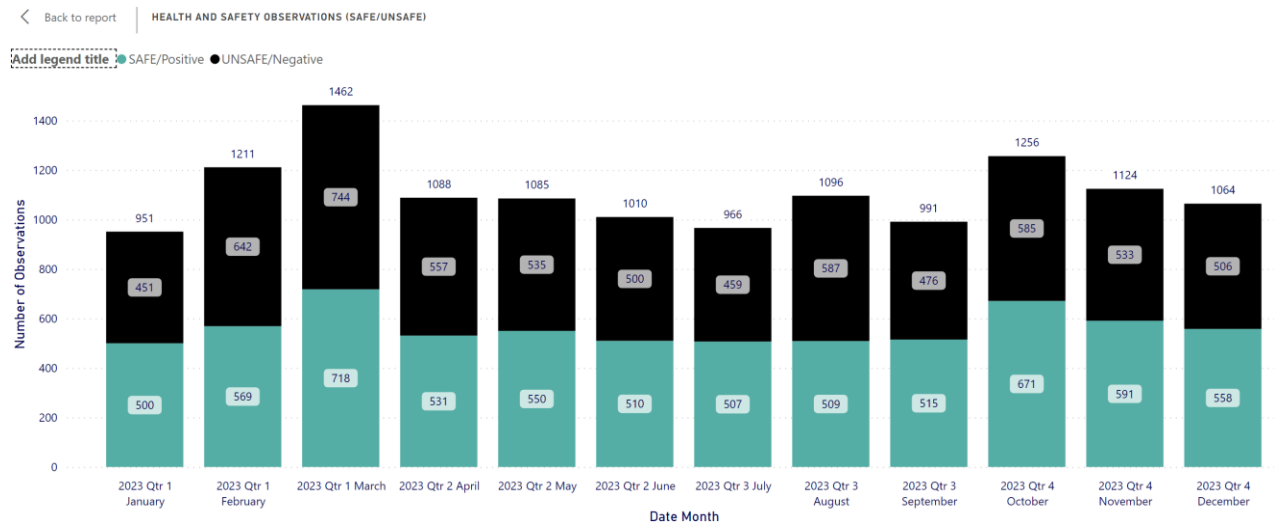
FIGURE 1: 2023 NEAR MISS CATEGORIES



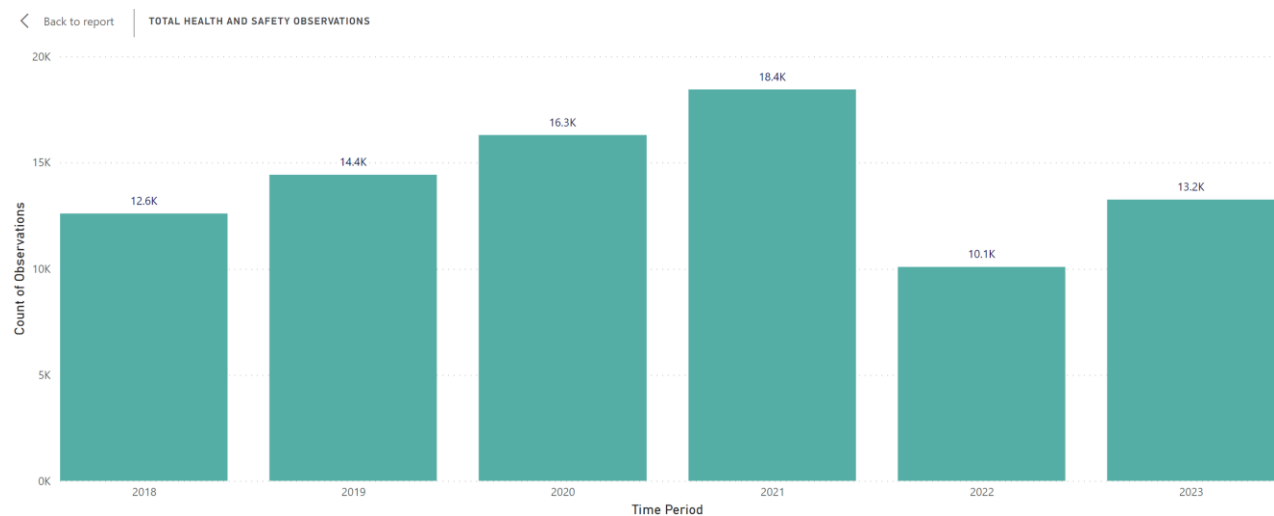
Contributing members report potential cause categories for near miss incidents. The top five i.e. most frequently reported potential cause categories for NMI in 2023 were:

- Potential driving related incidents – collisions etc.
- Another type of incident (non-specific).
- Potentially hit by moving, flying, or falling object.
- Potentially hit by moving vehicle.
- Potential slip, trip and fall on same level.



**FIGURE 2: 2023 BREAKDOWN OF HEALTH AND SAFETY OBSERVATIONS**

This was the first year where health and safety observations were split into safe/positive and unsafe/negative observations. Previously only total numbers of observations were recorded. The next chart shows total numbers recorded since 2018.

**FIGURE 3: TOTAL HEALTH AND SAFETY OBSERVATIONS (2018-2023)**

There were 13,200 health and safety observations recorded from all contributing members in 2023. This was higher than the 10,100 observations recorded in 2022. Total observations in the last two years have been less than the highest recorded amount in 2021 (18,400 observations) despite additional contributing members in 2022 and 2023.

**Health and safety observations play an important role in proactive risk management and in preventing workplace incidents. Observations should be encouraged, both positive and negative, to reinforce expected positive behaviours and to allow early identification and mitigation of potential hazards which may lead to incidents.**



## SECTION 2 – INJURY AND RIDDOR BREAKDOWN

The figures below show the total number of incidents and the classification breakdown from 2023. Note that this was the first full year that incidents have been categorised and broken down rather than reporting only total Lost Time Injuries (LTIs) and total RIDDOR reports.

This report (and PSS) use the following PSS definition for Lost Time Incidents:

*A Lost Time Injury (LTI) is a work-related injury or disease that resulted in: time lost from work of at least one day beyond the day of the accident / incident.*

TABLE 2: 2023 INJURY BREAKDOWN/CLASSIFICATION

| Type                           | Injury Count (2023) |
|--------------------------------|---------------------|
| Lost Time Injury (LTI)         | 193                 |
| Minor Injury                   | 648                 |
| Medical Treatment Injury (MTI) | 45                  |
| Restricted Work Injury (RWI)   | 9                   |
| Total                          | 895                 |

**Note:** All other injury definitions are provided at the end of this document in section 10.

FIGURE 4: 2023 INJURY BREAKDOWN/CLASSIFICATION BY MONTH

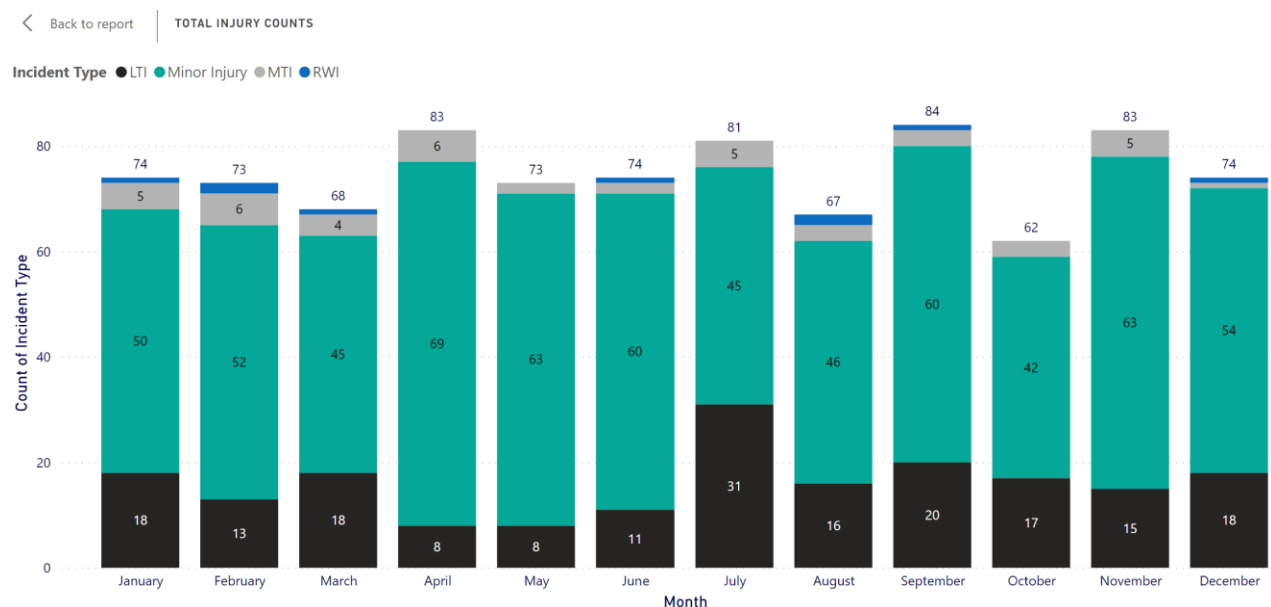


TABLE 2: LOST TIME INJURIES (LTI) &amp; INCIDENCE RATE / 100 WORKERS

Headcount is average across all contributing members.

|  | 2019        | 2020        | 2021        | 2022        | 2023        | Change<br>22/23 |
|--|-------------|-------------|-------------|-------------|-------------|-----------------|
| <b>Average Headcount (Direct &amp; Indirect)</b> | 12,829      | 12,583      | 12,671      | 14,894      | 18,314      | ▲ 22%           |
| <b>Total LTIs Reported</b>                       | 289         | 216         | 169         | 237         | 193         | ▼ 19%           |
| <b>LTI Incidence per 100 Workers</b>             | <b>2.25</b> | <b>1.72</b> | <b>1.33</b> | <b>1.59</b> | <b>1.05</b> | ▼ 34%           |

There were 193 LTIs reported in 2023, a 19% reduction from 2022 (237). The total average headcount across all contributing members increased in 2023.

The historical metric of LTI's per 100 workers reduced in 2023 from 2022 by 34%. The reduction in total LTIs and an increase in average headcount drove a corresponding reduction in the LTI rate per 100 workers.

TABLE 3: RIDDOR REPORTED INCIDENTS &amp; INCIDENCE RATE / 100 WORKERS

|  | 2019        | 2020        | 2021        | 2022        | 2023        | Change<br>2022/23 |
|--|-------------|-------------|-------------|-------------|-------------|-------------------|
| <b>Average Headcount (Direct &amp; Indirect)</b> | 12,829      | 12,583      | 12,671      | 14,894      | 18,314      | ▲ 22%             |
| <b>Total RIDDOR Reported</b>                     | 21          | 91          | 70          | 91          | 106         | ▲ 16%             |
| <b>RIDDOR Incidence per 100 Workers</b>          | <b>0.16</b> | <b>0.72</b> | <b>0.55</b> | <b>0.61</b> | <b>0.58</b> | ▼ 5%              |

Total RIDDOR reportable incidents are the total number of incidents which were flagged with a RIDDOR category including 'Fatality', 'over 7-Day injury' or 'Specified Injuries'. Occupational diseases and 'Dangerous Occurrences' were counted separately.

The total number of RIDDOR reportable incidents were 16% higher in 2023 (106) than 2022 (91). Some of this may be due to higher total number of contributing members and headcount in 2023, adding to the total RIDDOR incident count. As with the LTIs the historical metric of total RIDDOR incidents per 100 workers showed a reduction in 2023 from 2022. The total RIDDOR incidents showed a 5% reduction in 2023 (0.58) from 2022 (0.61).

The details of RIDDOR incidents reported in 2023 are:

- 85 over 7-day injuries.
- 21 specified injuries.
- one occupational illness (hand arm vibration syndrome: HAVS)
- 10 dangerous occurrences. These included failures of lifting equipment, dropped lifting equipment, overturned container and others.

This breakdown was not available in previous years for comparison as only the total RIDDOR reported incidents were collected previously.

There were a total of 2,076 lost days' work from 193 lost time injuries in 2023.

The LTI Severity Rate is a crude measure of days lost per LTI, which was 10.76 in 2023. Recording of days lost and the introduction of a severity rate also began in 2023. These were not collected previously.



## SECTION 3 – RATES

The HSE identify two formulas for injury rates: *incidence* and *frequency*.

An **INCIDENCE** rate gives injuries per set number of employees, normally 100,000.

In PSS statistics 'per 100 employees' is used because of the relatively small population size.

A **FREQUENCY** rate gives injuries per million hours worked.

This is a common figure used for benchmarking across industries.

Lost Time Injury **FREQUENCY** Rate (LTIFR) per million hours worked.

$$\frac{\text{Number of reported LTIs per year}}{\text{Total hours worked during year}} \times 1,000,000$$

TABLE 3: LOST TIME INJURY FREQUENCY RATE (LTIFR) (2018-2023)

| All LTI Reported               | Combined Data (Direct + Indirect Employees) |       |       |       |       |
|--------------------------------|---|-------|-------|-------|-------|
|                                | 2019  | 2020  | 2021  | 2022  | 2023  |
| Total Hours Worked (million)   | 26.6m                                       | 26.1m | 26.5m | 32.2m | 35.7m |
| Total Lost Time Injuries (LTI) | 290   | 216   | 169   | 237   | 193   |
| LTIFR per million work hours   | 10.86                                       | 8.28  | 6.38  | 7.36  | 5.41  |
|                                | ▲ 21%                                       | ▼ 24% | ▼ 23% | ▲ 14% | ▼ 28% |

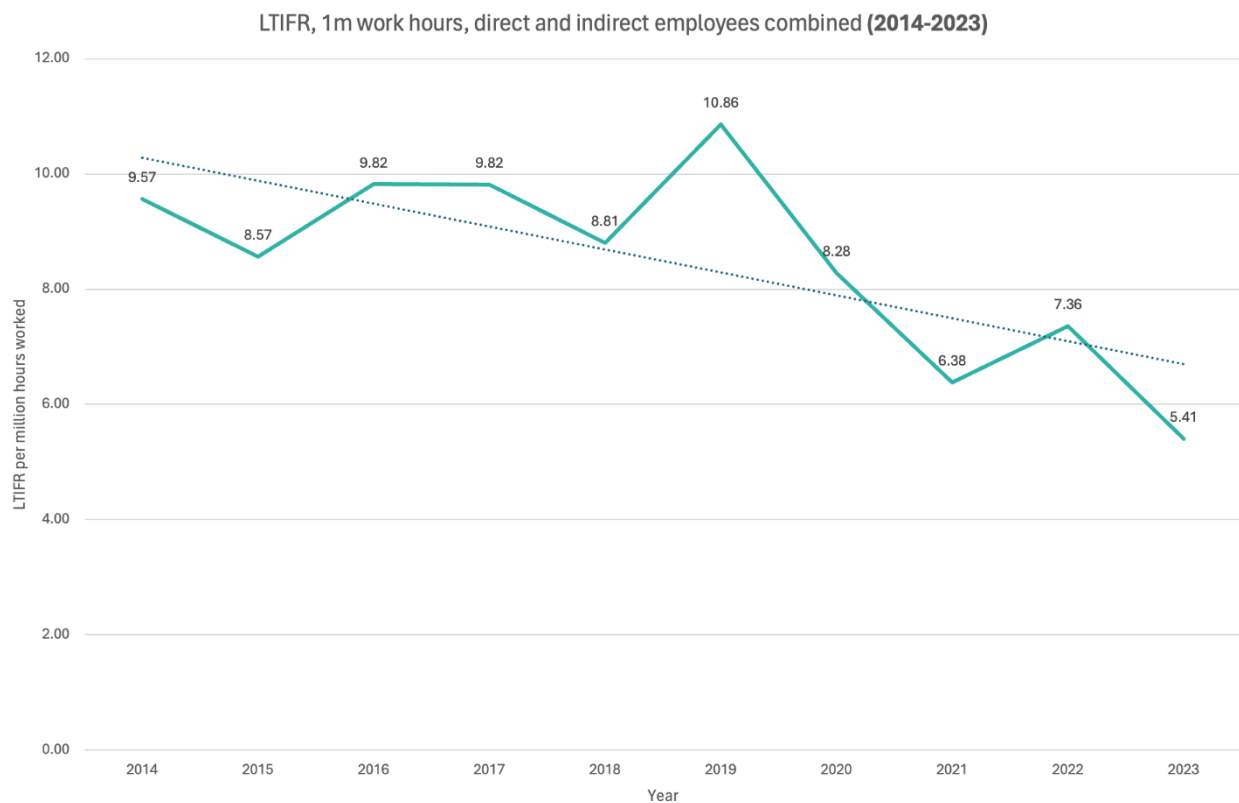
**Note 1:** Work hours were not collected for the dashboard before 2022. Where work hours were not provided, a standardised work hours calculation has been made using a working week of 40 hours multiplied by number of personnel (direct and indirect).

**Note 2:** These data now represent the combined LTIFR i.e. combined work hours and LTI numbers for both direct and indirect employees on site. Annual reports before 2022 were based only on direct employees.

The combined LTIFR for 2023 was 5.41 per million hours worked. This was a drop of approximately three quarters of the LTIFR in 2022 which was 7.52 per million hours worked. This is due to the large reduction in LTIs recorded from 237 in 2022 to 193 in 2023, combined with a large increase in total work hours recorded. Up to 35.7 million work hours in 2023, from 31.5 million in 2022, across all contributing members.

Figure 5 shows the LTIFR rates from 2014 to 2023 and includes an added trendline which shows a downward trend in LTIFR over the previous 10 years. This is encouraging and reflects the efforts of contributing members in risk management programs at their respective sites.

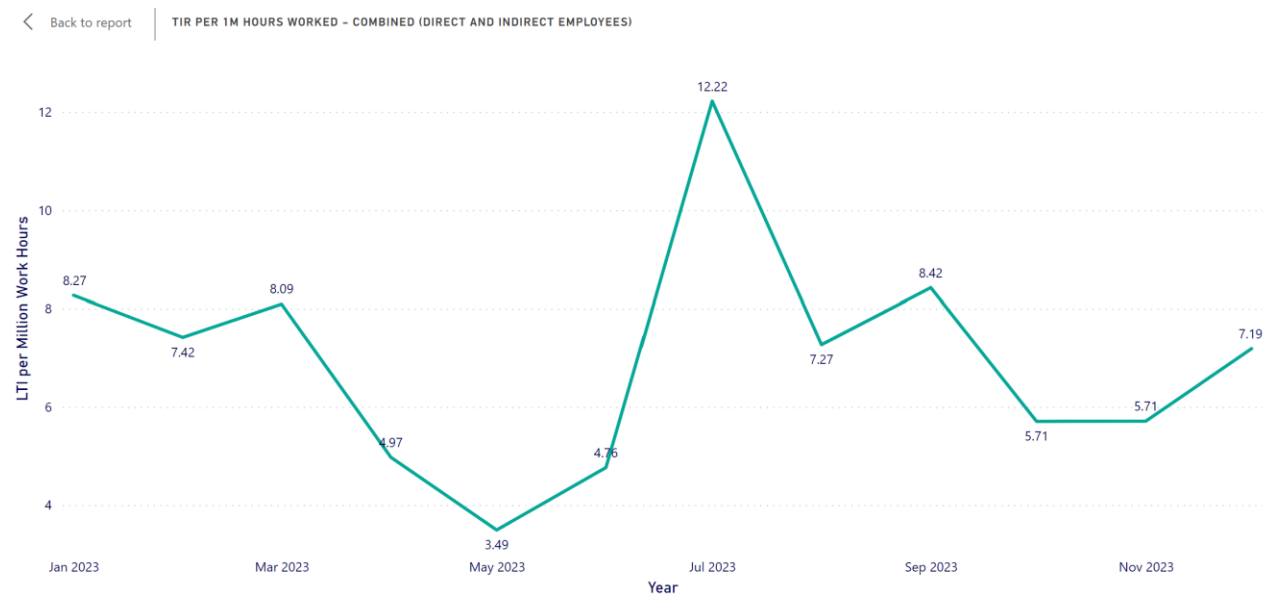
**FIGURE 5: LTIFR (1M WORK HOURS) (2014-2023)**



The Total Incident Rate (TIR) was introduced in 2023 and is a measure of rate of reported incidents (all types except minor injuries) per 100,000 workers. This includes Lost Time Injuries (LTI), Restricted Work Injuries (RWI) and Medical Treatment Injuries (MTI).

The TIR for 2023, for all workers combined (direct and indirect employees) was **6.92 per million hours worked**.

**FIGURE 6: TIR (1M WORK HOURS) (2023 ONLY)**







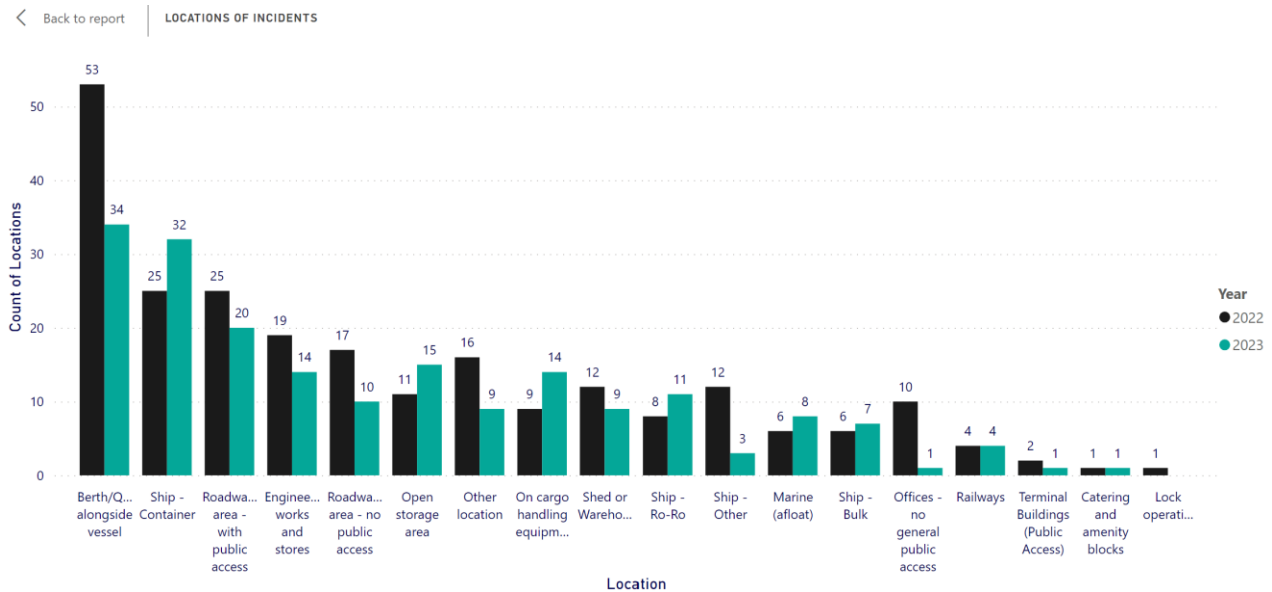
## SECTION 4 – INCIDENT LOCATIONS

The most common incident locations continue to be berth/quayside/alongside a vessel, on container ships and roadways/parking area (with public access). This was true for 2023 lost time injury data (Table 4) and is also true for all recorded incidents since 2018 (Figure 7).

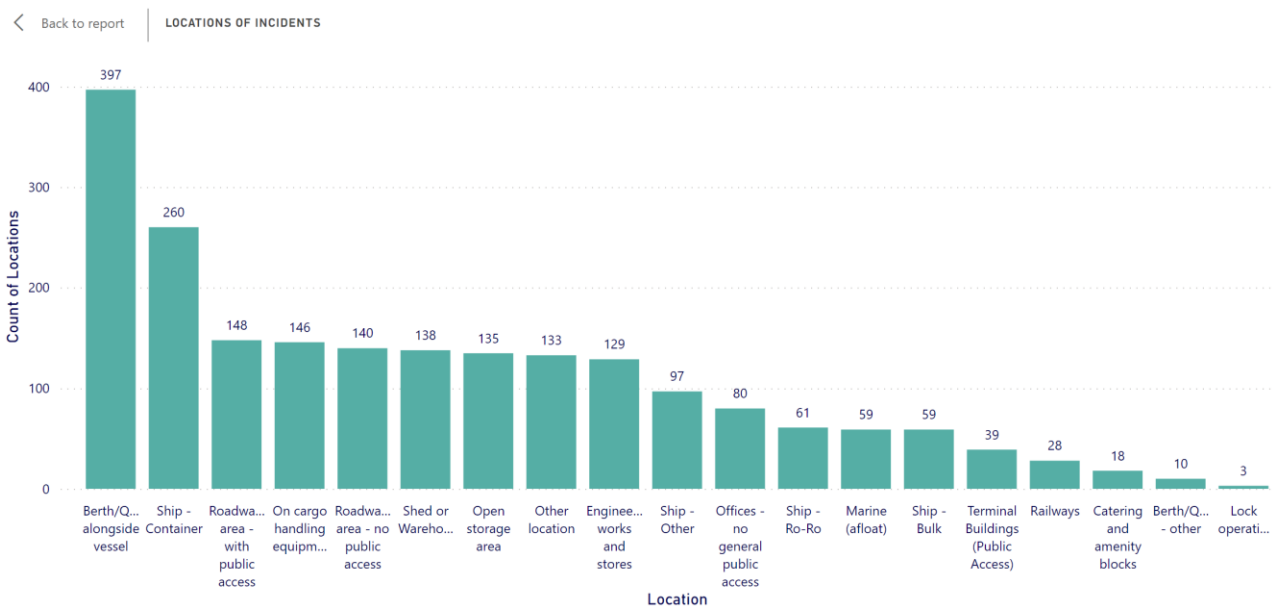
**TABLE 4: LOST TIME INJURIES BY LOCATION (2022 VS 2023)**

|   | 2022 (LTIs) | 2023 (LTIs) |
|---|-------------|-------------|
| <b>Berth/Quay – alongside vessel</b>              | 53* (60)    | 34          |
| <b>Ship – Container</b>                           | 25          | 32          |
| <b>Roadways/parking area – with public access</b> | 25          | 20          |
| <b>Engineering works and stores</b>               | 19          | 14          |
| <b>Roadways/parking area – no public access</b>   | 17* (25)    | 10          |
| <b>Open storage area</b>                          | 11* (12)    | 15          |
| <b>Other location</b>                             | 16          | 9           |
| <b>On cargo handling equipment</b>                | 9           | 14          |
| <b>Shed or warehouse</b>                          | 12* (17)    | 9           |
| <b>Ship – RoRo</b>                                | 8* (14)     | 11          |
| <b>Ship – Other</b>                               | 12          | 3           |
| <b>Marine (afloat)</b>                            | 6           | 8           |
| <b>Ship – Bulk</b>                                | 6           | 7           |
| <b>Offices – no general public access</b>         | 10          | 1           |
| <b>Railways</b>                                   | 4           | 4           |
| <b>Terminal Building (public access)</b>          | 2           | 1           |
| <b>Catering and amenity blocks</b>                | 1           | 1           |
| <b>Lock Operations</b>                            | 1           | 0           |

*\*2022 corrected data following data cleansing/corrections, previous reported value in parentheses.*

**FIGURE 6: LOST TIME INJURIES BY LOCATIONS (2022 VS 2023)**

Although the total LTIs were lower in 2023 than 2022, the top locations of incidents follow the same ranking as 2022 and indeed most other years. These are high level categories that are used and clearly within each there may be further granularity, but they do provide an indicator of locations that should be treated with extra vigilance in risk management programs.

**FIGURE 7: ALL INCIDENTS BY LOCATION (2018 – 2023)**



## SECTION 5 – IMMEDIATE CAUSES

The top five immediate causes of reported incidents in 2023 were:

- Slipped, tripped, or fell on same level.
- Injured whilst handling, lifting, or carrying.
- Another type of accident.
- Hit by moving, flying, or falling object.
- Caught between objects (e.g. nips of fingers/hands).

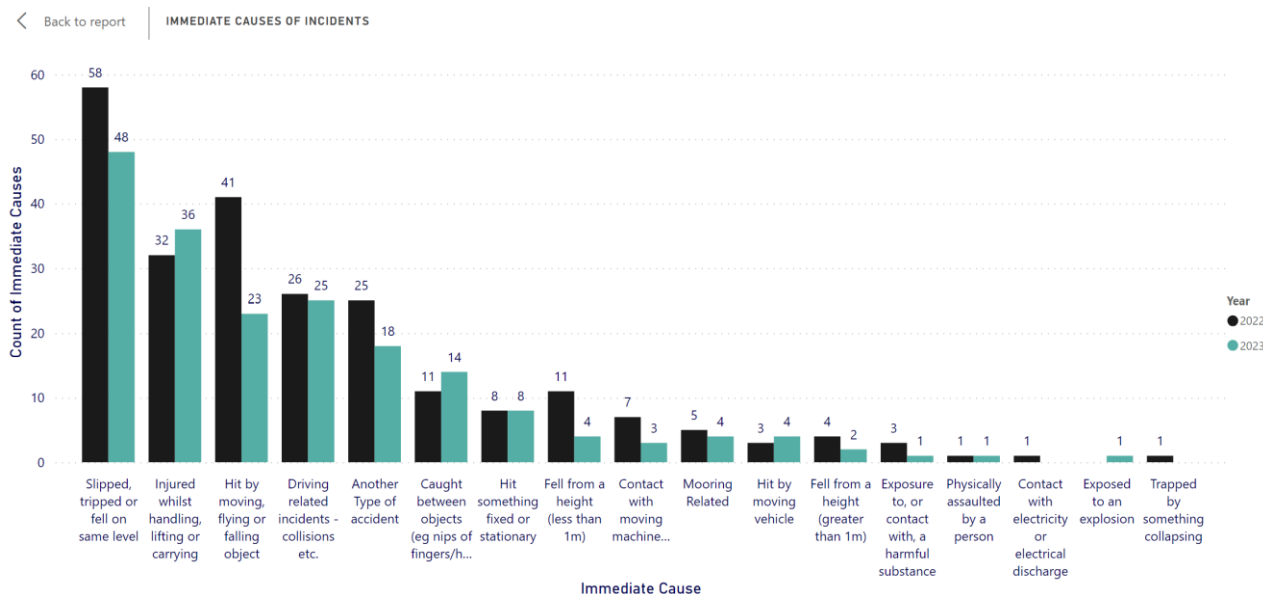
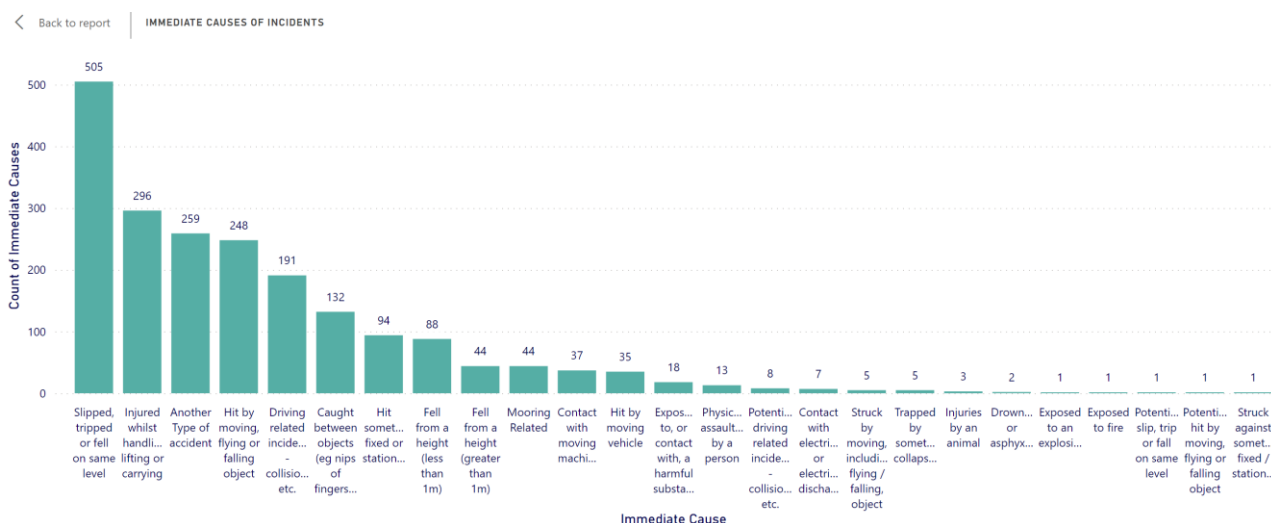
As with 2022, most lost time incidents were caused because of slipping, tripping, or falling on the same level. Although total numbers in 2023 were lower (48) than 2022 (58). Injuries caused whilst handling, lifting, or carrying were slightly higher than 2022, 36 LTIs vs 32 in 2022. Injuries caused by being hit by moving, flying, or falling objects were nearly half of those reported in 2022, 23 LTIs vs 41 in 2022. Driving related incidents, collisions etc remained almost the same as 2022. Finally, those LTIs with immediate causes classed as 'another type of incident' were lower in 2023 at 18 cases vs 25 in 2022.

**TABLE 6: LOST TIME INJURIES BY IMMEDIATE CAUSE (2022 VS 2023)**

| Category   | 2022     | 2023 |
|--|----------|------|
| <b>Slipped, tripped, or fell on same level</b>         | 58* (64) | 48   |
| <b>Injured whilst handling, lifting, or carrying</b>   | 32* (40) | 36   |
| <b>Hit by moving, flying or falling object</b>         | 41* (44) | 23   |
| <b>Driving related incidents, collisions etc.</b>      | 26* (28) | 25   |
| <b>Another type of accident</b>                        | 25* (27) | 18   |
| <b>Caught between objects (nips of fingers, hands)</b> | 11* (13) | 14   |
| <b>Hit something fixed or stationary</b>               | 8* (10)  | 8    |
| <b>Fell from height (less than 1m)</b>                 | 11* (12) | 4    |
| <b>Contact with moving machinery or materials</b>      | 7        | 3    |
| <b>Mooring related</b>                                 | 5* (7)   | 3    |
| <b>Hit by moving vehicle</b>                           | 3        | 4    |
| <b>Fell from height (greater than 1m)</b>              | 4        | 2    |
| <b>Exposed to or contact with harmful substance</b>    | 3        | 1    |
| <b>Physically assaulted by a person</b>                | 1        | 1    |
| <b>Contact with electricity, electrical discharge</b>  | 1        | 0    |
| <b>Exposed to an explosion</b>                         | 0        | 1**  |
| <b>Trapped by something collapsing</b>                 | 1        | 0    |

\* 2022 corrected data following data cleansing/corrections, previous reported value in parentheses.

\*\* Battery explosion on heavy goods vehicle.

**FIGURE 8: LOST TIME INJURIES BY IMMEDIATE CAUSES (2022 VS 2023)****FIGURE 9: ALL INCIDENTS BY IMMEDIATE CAUSES (2018-2023)**

A summary of ALL injury types (combined) immediate cause categories since 2018 is shown in Figure 9. The top five immediate cause categories over 2018-2023 are as follows:

- Slipped, tripped, or fell on same level (*consistently highest immediate cause each year*)
- Injured whilst handling, lifting, or carrying.
- Another type of incident,
- Hit by moving, flying, or falling object.
- Driving related incidents, collisions etc.

This most common immediate cause (slipped, tripped, or fell on same level) would appear to be innocuous on face value but has been contributing to the highest proportion of incidents which are severe enough to result in lost time injuries since 2018. The root causes for these will vary and the data is not available. The figures indicate more work is required to identify and manage the risks associated with access and egress to facilities, buildings, roadways, and plant/equipment.

PSS will support this area of focus by prioritising critical reviews of relevant Safety in Port (SiP) guidance to ensure these are fit for purpose. This aligns with the PSS strategic objective of 'improving UK port safety guidance' by reviewing Safety in Port (SiP) documents and would include:

- SiP001 - Guidance on Port and Terminal Planning (Workplace Transport).
- SiP014 - Guidance on Safe Access and Egress.

**Below are some risk factors to consider as part of managing slips, trip, and falls:**

| Risk Factors   | Considerations   |
|--|--|
| Internal floor surfaces and condition  | Slip resistance of flooring in adequate for design use<br>Aged flooring with reduced slip resistance<br>Uneven, damaged, or poorly maintained floor surfaces<br>Uneven floor heights<br>Unmarked edges or low steps<br>Slippery surfaces such as metal or smooth epoxy<br>Sudden changes in floor surfaces   |
| External ground surface and condition, including workplace access and egress | Uneven ground surfaces, pathways, street furniture, slabs, gratings etc<br>Surfaces that are slippery when wet or in winter conditions<br>Slippery surfaces by their properties<br>Natural features such as tree roots, wet grass, mud etc   |
| Contaminants   | Inadequately drained floor surfaces in wet areas<br>Areas that may have fluid or other contaminants on the floor<br>Areas where leaks are common<br>Oil, water and other fluid leaks from machinery, work processes or stored containers<br>Dry contaminants<br>Dry litter<br>Wet surfaces near external doors where traffic and weather bring in rainwater<br>Moisture and fluids spills on external pathways |
| Cleaning Procedures  | Contaminants still present after cleaning<br>Wet cleaning or polishing of floors during working hours<br>Build-up of floor polish on the floor<br>Detergent residue on the floor<br>Untidy work areas<br>Accidental spills left unattended   |
| Housekeeping   | Storage of equipment and materials in walkways and routes frequently used by pedestrians<br>Pedestrian walkways not well defined<br>Low obstacles where people need to walk  |
| Lighting   | Limited vision on stairs at changes of floor surfaces or floor levels, on ramps and walkways<br>Poorly lit work areas and walkways<br>Sudden changes in lighting levels between areas  |
| Stairs, Ladders, Ramps   | Inappropriately designed steps, ladders or stairs, including those used in facilities and on plant/machinery<br>Ramps that are too steep or with slippery surface<br>Small or missing landings where doors open directly onto stairs<br>Step edge and tread not obvious  |
| Activities   | Heavy trolleys used on steep ramps<br>Trolleys used on ramps without edge protection<br>Rushing, running, and performing manual tasks on contaminated floors<br>Pressured work schedules creating speed and sudden changes in direction of movement<br>Limited vision for pushing and carrying loads   |
| Footwear   | Unsuitable footwear worn for the task<br>Shoes are not slip resistant  |



## SECTION 6 – BODY PART ANALYSIS

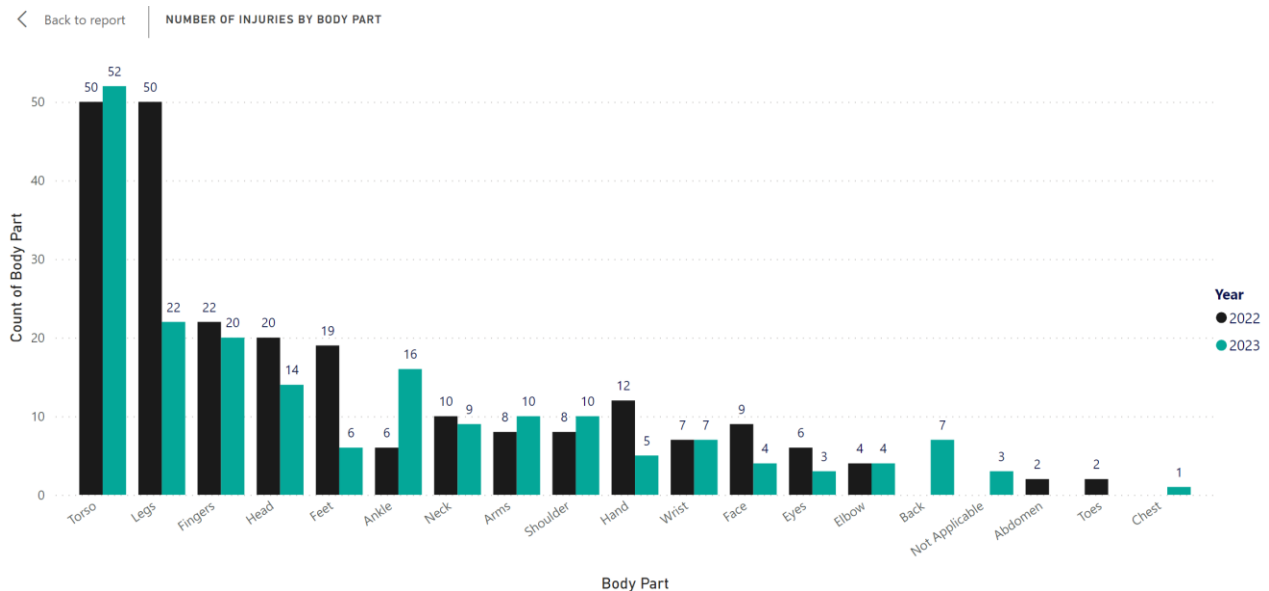
The top five body parts injured within the port industry in 2023 were:

- Torso (previously included 'Back', now separated)
- Legs
- Fingers
- Head
- Ankle

Torso was the most injured body part from LTIs in 2023. In 2022 this was Legs (50), but in 2023 Legs only accounted for 22 LTI injuries. Finger injuries were similar in 2023 (20 LTIs vs 22 in 2022). Head injuries were also lower in 2023 (14 LTIs vs 20 in 2022). However, considerably more ankle injuries were reported in 2023 (16 LTIs vs 6 in 2022) which is linked to the most common immediate cause of injuries i.e. slipping, tripping, and falling on the same level.

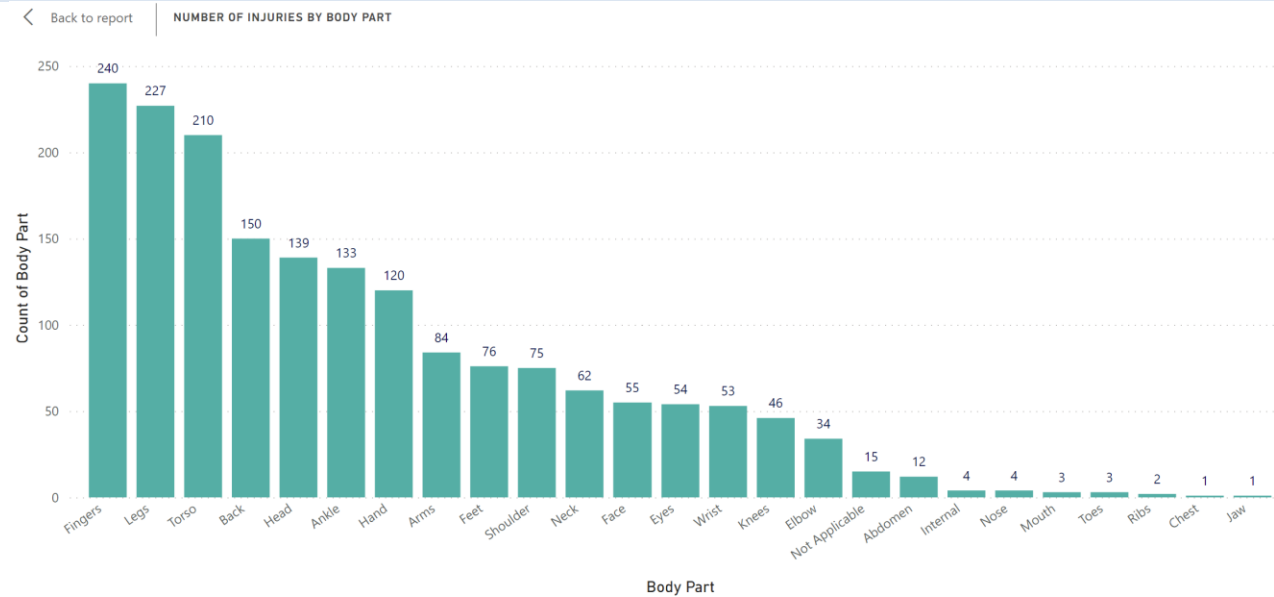
Of the 48 LTIs in 2023 caused by slipping, tripping, and falling on the same level, 14 of those resulted in ankle injuries, 14 resulted in leg injuries and 9 resulted in injury to the torso.

**FIGURE 10: LOST TIME INJURY BODY PART INJURY COUNTS (2022 VS 2023)**



**Note:** 'Torso' previously included 'Back' but 'Back' has now been separated from this.



**FIGURE 11: ALL INJURY BODY PARTS (2018-2023)**

**Note:** These injuries were extracted from incident descriptions as body part data was not specifically collected before 2022

The top five body parts injured between 2018 and 2023 were:

- Fingers
- Legs
- Torso
- Back
- Head



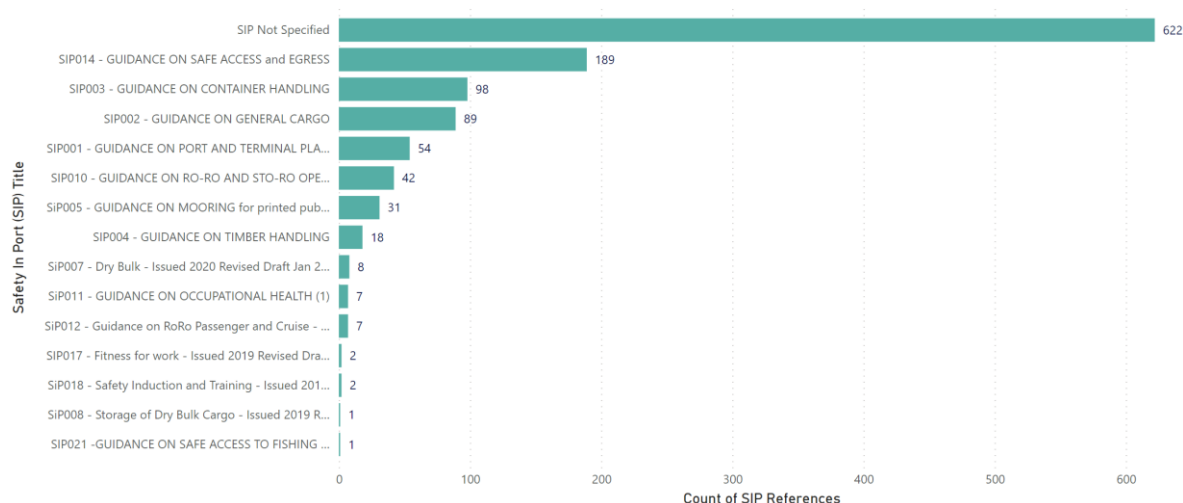
## SECTION 7 – HIPO INCIDENTS AND SIPS

Contributing members can annotate incidents as high potential incidents (HiPo). This is determined by PSS members when reporting and the category is used when the outcome of the incident could have been more severe under slightly different circumstances. HiPo incidents are useful for spotting trends in severity and potential severity, and can be used to improve incident analysis, investigation, and lessons learned. The objective is to prevent such incidents and avoid a more severe iteration of that incident type in future.

In 2023 there were 74 HiPo incidents, a 37% increase from 2022 when there were 54 reported HiPo incidents. While overall LTIs and LTI rates have reduced, the potential of reported incidents appears to have increased. This should drive investigation commensurate with the highest potential of these incidents, which in turn should drive actions to proactively prevent any of these higher potential incidents reaching that potential.

One recommendation from the 2023 data workshop was to link reported incidents to specific PSS Safety in Port (SiP) documents with a intention to identify the need for updates and changes to support ports. This has been done retrospectively for 2022 and 2023 data, where possible. Where not possible due to insufficient detail the incident remained categorised as 'SiP not specified'. Data for 2022/2023 is shown in Figure 12.

FIGURE 12: SAFETY IN PORT CLASSIFICATIONS OF INCIDENTS



The classification of relevant SiPs follows immediate cause trends, which is not unexpected, and does indicate the need for critical review and revision of SiPs in the areas of access and egress (SiP014), container handling (SiP003) and general cargo (SiP002). **Aligning with the PSS strategic objective of 'improving UK port safety guidance' by updating Safety in Port (SiP) guides. These priorities are reflected in the timetable for SiP review published in the PSS Health, Safety and Culture Strategy 2024-2028.**

Data from contributing members continues to highlight slips, trips and falls on the same level (access/egress) and work on container ships as key areas requiring targeted risk management strategies. Both have their unique challenges and opportunities and there are no simple solutions to fit all. Critical review of the supporting SiPs and accompanying incident data in these areas is recommended and should also be done in conjunction with specific reviews at respective members sites. Success in enhanced risk management within these two key areas would significantly reduce total incidents across the sector.



## SECTION 8 – DATA COLLECTION

### SOURCE POPULATION

Data supplied from 23 contributing members. There was an average of 18,245 workers (direct and indirect workers) from all contributing members.

The increase in total contributing members and workers may or may not account for some of the changes in observed trends, on a proportional basis. Where possible, rates have been used to adjust for this.

### METHOD OF COLLATION

- Figures were collated for January to December 2023.
- Ports completed and submitted a monthly data collection sheet to PSS.
- Lost Time Injuries (LTIs) were recorded where the injured party has lost a minimum of 1-day (or shift) of work, plus other RIDDOR reportable incidents. This includes over 7-day absences and specific injury types.
- Incidents are broken down into specific types and RIDDOR classifications (2023 onwards).
- The definition of 'employee' includes any direct hire person for whom an incident report would be completed and submitted to the HSE by the company if that person were to be injured at work.
- 'Incidents' include incidents to non-employees that the port employer has a responsibility to report e.g., if a member of the public is injured, and incidents to indirect employees (contractors) under the management control of the contributing member.

### COMPARISON WITH DATA FROM OTHER SOURCES

Data submitted to PSS includes all major UK ports, smaller ports, port associations and operating companies. These are deemed to be representative of the UK port industry.

Industry incident statistics are also collated by the Department for Transport (DfT) and Health and Safety Executive (HSE), although the basis and definitions for inclusion in each of the schemes and metrics used can vary considerably.

Direct comparison with previous annual PSS statistical reports and other industry sectors should be treated with caution. This is primarily due to slight differences in terminology, categories, and data collection methods at respective ports, and during collation and analysis.



## SECTION 9 – DEFINITIONS USED BY PSS

| Term                                  | PSS Definition   |
|---------------------------------------|--|
| <b>Direct Employee</b>                | Employees are direct hires to operating company.   |
| <b>Indirect Employee</b>              | Indirect hires directly involved with port operations such as contract stevedores or plant and equipment operators, directed by the company.   |
| <b>Work Hours</b>                     | Total number of hours worked in an organisation. Split into direct and indirect employee hours and combined. May be estimated (using headcount and shift duration) or calculated, as recorded.   |
| <b>% Sickness Absence</b>             | % of direct employees absent from work due to sickness.  |
| <b>Minor Injury</b>                   | An injury that does not require treatment or requires a single first aid treatment. For example, bruises, minor scratches, burns, cuts and so forth, which do not ordinarily require medical care, and for which the person would typically return immediately to their normal activities. Such treatment and observation is considered first aid even if it is administered by a physician or registered medical professional.  |
| <b>Medical Treatment Injury (MTI)</b> | Workplace injury, illness or disease resulted in a certain level of treatment given by a physician or other medical personnel under the standing orders of a physician and requiring more than first aid. This means treatment more than the following: Applying band-aids, gauze pads and butterfly bandages; use of non-rigid means of support like elastic bandages and wraps; cleaning wounds on the surface of the skin; removing splinters and drinking fluids to relieve heat stress.   |
| <b>Restricted Work Injury (RWI)</b>   | Restricted Work Case is when a person is injured or suffers work-related ill health such that they cannot perform their normal duties. Therefore, they are transferred, temporarily to some other jobs (light duties).   |
| <b>Lost Time Injury (LTI)</b>         | A Lost Time Injury (LTI) is a work-related injury or disease that resulted in: time lost from work of at least one day beyond the day of the accident / incident.  |
| <b>Fatality</b>                       | One or more deaths as a direct result of work activities.  |
| <b>RIDDOR Specified Injuries</b>      | (a) any bone fracture diagnosed by a registered medical practitioner, other than to a finger, thumb or toe;<br>(b) amputation of an arm, hand, finger, thumb, leg, foot or toe;<br>(c) any injury diagnosed by a registered medical practitioner as being likely to cause permanent blinding or reduction in sight in one or both eyes;<br>(d) any crush injury to the head or torso causing damage to the brain or internal organs in the chest or abdomen;<br>(e) any burn injury (including scalding) which—<br>(i) covers more than 10% of the whole body's total surface area; or<br>(ii) causes significant damage to the eyes, respiratory system or other vital organs;<br>(f) any degree of scalping requiring hospital treatment;<br>(g) loss of consciousness caused by head injury or asphyxia; or<br>(h) any other injury arising from working in an enclosed space which—<br>(i) leads to hypothermia or heat-induced illness; or<br>(ii) requires resuscitation or admittance to hospital for more than 24 hours, |

| Term  | PSS Definition   |
|---|--|
| <b>RIDDOR Injuries</b>                            | Any person at work is incapacitated for routine work for more than seven consecutive days (excluding the day of the accident) because of an injury resulting from an accident arising out of or in connection with that work. Injuries to non-workers which result in them being taken directly to hospital for treatment. |
| <b>RIDDOR Dangerous Occurrence</b>                | Specified under schedule 2 of RIDDOR ( <a href="#">at this link</a> ).   |
| <b>Days Lost (Injury)</b>                         | Number of days work lost following an incident resulting in injury.  |
| <b>Occupational Related Illness</b>               | Any confirmed case of work-related ill-health.   |
| <b>Days Lost (W-R Ill Health)</b>                 | Number of days work lost following confirmed case of work-related ill health.  |
| <b>Body Part</b>                                  | Part of the body that has been injured in an incident.   |
| <b>Immediate Cause</b>                            | Actions of people or conditions in the workplace, which are the most obvious acts, conditions or omissions that resulted in the incident.  |
| <b>Near Miss Incident</b>                         | An event not causing harm but has the potential to cause injury, ill health or loss.   |
| <b>High Severity Incident (or High Potential)</b> | An event that, if any one factor had been different, might easily have resulted in a potential fatality, life changing incident or serious loss.   |
| <b>Safety Alert</b>                               | Communications issued when there is a specific safety issue that, without immediate action being taken, could result in an incident.   |
| <b>Health and Safety Observation</b>              | Unsafe or safe acts and/or conditions reported as workplace observations. Details what was seen and what was done.   |
| <b>Visible Felt Leadership Activities</b>         | Senior management walking operational areas and undertaking visible EHS leadership and interacting with personnel.   |
| <b>H&amp;S Training</b>                           | The number of training hours delivered i.e. number of people, multiplied by duration of course in hours. Excludes standard induction training. Setup as rate per direct and indirect employees.  |
| <b>CALCULATED METRICS USING ABOVE STATS</b>       |  |
| <b>Total Incidents</b>                            | Composed of Minor Injury + MTI + RWI + LTI   |
| <b>TIR</b>  | Total Injury Rate is the sum of all fatalities, lost time incidents, medical treatment incident, and restricted work cases per 200,000 or 1 million work hours. Separated by direct and indirect employees and combined.   |
| <b>LTIFR</b>                                      | Lost Time Injury Frequency Rate is the number of Lost Time Injuries per hours worked during per 200,000 or 1 million hours worked. Separated by direct and indirect employees and combined.  |
| <b>AIR</b>  | The overall sum of all (Minor Injury + MTI + RWI + LTI) over a rolling 12 month period multiplied by 100,000 and divided by the average number of employees for the same 12 month rolling period. Separated by direct and indirect employees and combined.   |
| <b>Severity Rate (Injury)</b>                     | Number of days lost per Lost Time Injury (LTI)   |
| <b>Severity Rate (W-R Ill Health)</b>             | Number of days lost per confirmed case of work-related ill health.   |