

OIR Typology

Workplace Health and Safety Queensland Board Report

Typology: Manufacturing industry

A report on the circumstances causing injuries or diseases which were compensated for 60 days or more.

Note: Data extracted January 2018

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1. Executive summary

This document provides a typology based on Queensland Manufacturing industry claims with 60 or more workdays compensated. The typology classifies the circumstances that resulted in the injury or disease using mechanism of incident, as outlined in the Types of Occurrence Classification System (TOOCS).

Claims with 60 or more workdays compensated account for 54 per cent of all Manufacturing claims costs over the period. The average claim rate was 4.6 claims per 1000 workers, which is noticeably higher than the average claim rate of three claims per 1000 workers for all Queensland industries. Workers in the Manufacturing industry are over 1.5 times as likely to experience a significant injury as workers in all other industries.

Manufacturing workers between the ages of 35 to 54 years represent approximately a half of all Manufacturing claims with 60 or more workdays compensated. Moreover, the average claim rates for the Manufacturing industry were significantly higher than the rates for all Queensland industries across all age groups. This was particularly evident in the younger age groups.

Over three quarters of claims with 60 or more workdays compensated were the result of either body stressing, falls or being hit by moving objects.

Body stressing injuries represent almost a half of all relevant Manufacturing claims. Body stressing injuries were mainly the result of either carrying or lifting objects.

Fall related injuries represent 17 per cent of all relevant Manufacturing claims. Over two thirds of the fall related injuries were due to a fall on the same level. Over the period, a total of two Manufacturing workers were fatally injured due to a fall.

Injuries resulting from being hit by moving objects represent 14 per cent of all relevant Manufacturing claims. On average, one Manufacturing worker per year was fatally injured over the period due to being hit by a moving object.

2. Introduction

This document provides a typology based on mechanism of incident and relates to the Manufacturing industry only. The Types of Occurrence Classification System (TOOCS), developed by Safe Work Australia, has been used to describe the relevant mechanism. The mechanism is the action, exposure or event that best describes the circumstances that resulted in the injury/disease.

2.1 What is a Typology?

A typology is a scientific method of classification that helps explain what has happened previously. In this case, the classification is based on TOOCS mechanism of incident and the typology is comprised of two levels. The higher level (or type) contains the largest and most general groups of mechanisms of incidents. The second type or sub-grouping is a breakdown of these larger mechanisms of incident groups. This typology is a form of pattern analysis that allows the reader to:

- identify common injury mechanisms and target areas of concern
- assess the effectiveness of targeted initiatives over time.

Note: The typology is restricted to two levels as it is based on TOOCS mechanism of incident, which is comprised of two levels. That is, an upper level (mechanism group) and a more detailed lower level (mechanism).

2.2 Scope

The typology was developed using accepted workers' compensation claims data where:

- the industry division¹ is Manufacturing
- 60 or more workdays are compensated
- psychological and commuting claims are excluded
- The claim intimation date is between 1 January 2012 and 31 December 2016 (the period).

2.2.1 Why focus on claims with 60 or more workdays compensated?

Table 1 below shows the number of Manufacturing claims and overall costs for each claim category. Although claims with 60 or more workdays compensated make up only 6 per cent of all claims over the period, they account for 54 per cent of total claim costs.

Manufacturing claims with 60 or more workdays compensated include permanent and non-permanent impairment damage claims and involve injuries of a significant nature.

¹ Based on ABS: ANZSIC 2006 Classifications

Table 1. Manufacturing claims by category (2012 to 2016)

Category	No. of claims	% of claims	Total claim costs [^]	% of costs
Less than 60 workdays compensated	57,636	94%	\$176M	43%
60 or more workdays compensated	3,895	6%	\$218M	54%
Fatality claims	35	0%	\$13M	3%
Total	61,566	100%	\$407M	100%

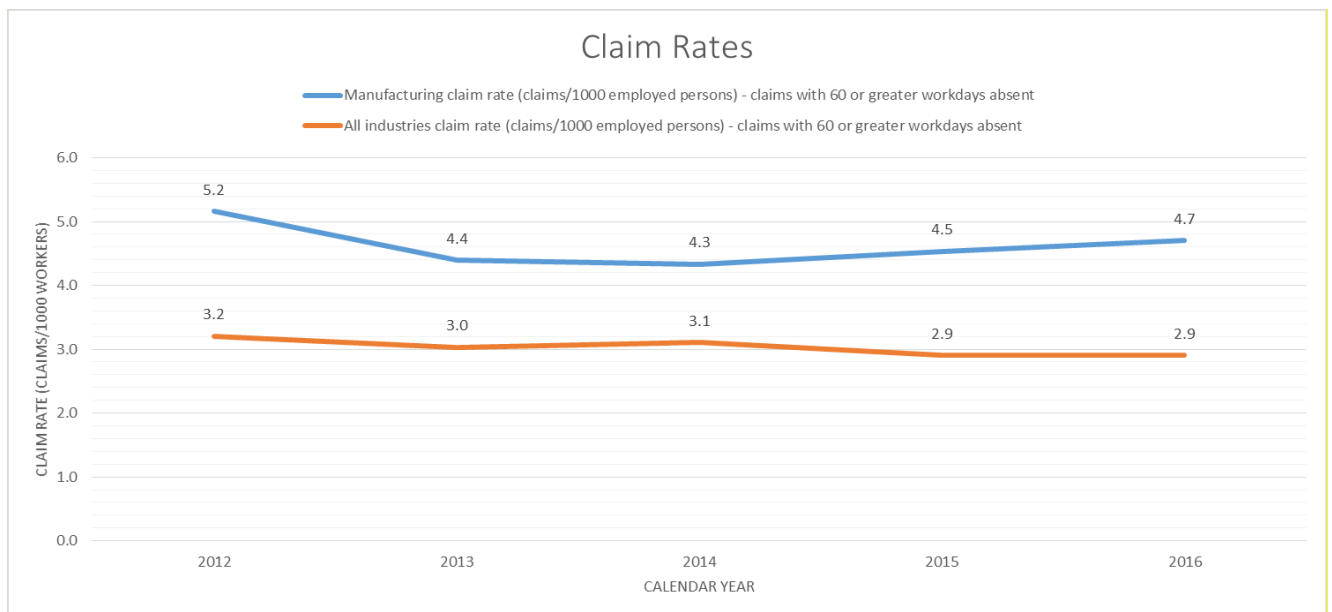
[^]Total statutory costs over the period - 2012 to 2016

3. Background – Manufacturing industry

3.1 Incidence

The claim rate for Manufacturing claims with 60 or more workdays compensated has increased over the past five years. Moreover, the Manufacturing claim rate sits above the claim rate for all Queensland industries. The average claim rate for Manufacturing over the period was 4.6 claims per 1000 workers, which is noticeably higher than the average claim rate of 3 claims per 1000 workers for all industries. Refer to chart 1 below.

Chart 1. Claim rates (2012 to 2016)



3.2 Likelihood of ≥60 workdays compensated claims

On average, one in every 217 Queensland Manufacturing workers each year will experience a significant injury (an injury which results in a claim requiring 60 or more workdays compensated). Notably, Manufacturing workers are over 1.5 times as likely to experience a significant injury when compared to workers from all other industries. Refer to tables 2 and 3 below.

Table 2. Likelihood – Manufacturing claims with 60 or more workdays compensated

Calendar year	No. of claims	Labour force ²	Likelihood (1 in X workers)
2012	867	168,100	1 in 194
2013	747	170,100	1 in 228
2014	723	166,800	1 in 231
2015	769	169,700	1 in 221
2016	789	167,800	1 in 213
Average			1 in 217

Table 3. Likelihood - All other industry claims (excluding Manufacturing) with 60 or more workdays compensated

Calendar year	No. of claims	Labour force ³	Likelihood (1 in X workers)
2012	6,459	2,115,600	1 in 328
2013	6,217	2,125,800	1 in 342
2014	6,494	2,158,900	1 in 332
2015	6,056	2,183,000	1 in 360
2016	6,097	2,200,800	1 in 361
Average			1 in 345

3.3 Age distribution

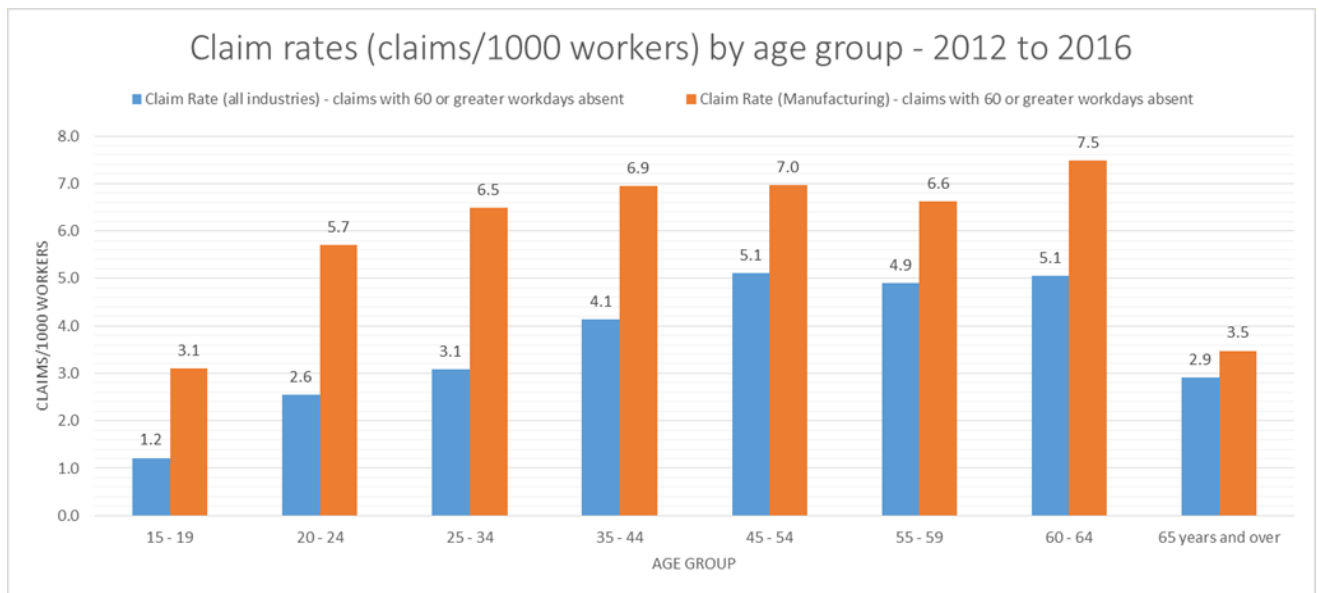
The rates in this section are significantly higher than other rates calculated in this paper due to different source denominators being used for age analysis. As such, these rates are not comparable.

Over a half of all Manufacturing claims with 60 or more workdays compensated were for workers between the ages of 35 and 54 years.

Chart 2 shows the claim rates for claims with 60 or more workdays compensated by age group. Notably, the average claim rates for Manufacturing are significantly higher than the rates for all Queensland industries across all age groups. Of concern are the younger age groups which have a significantly higher claim rate compared with the rate for all Queensland industries.

² Source: ABS labour force data

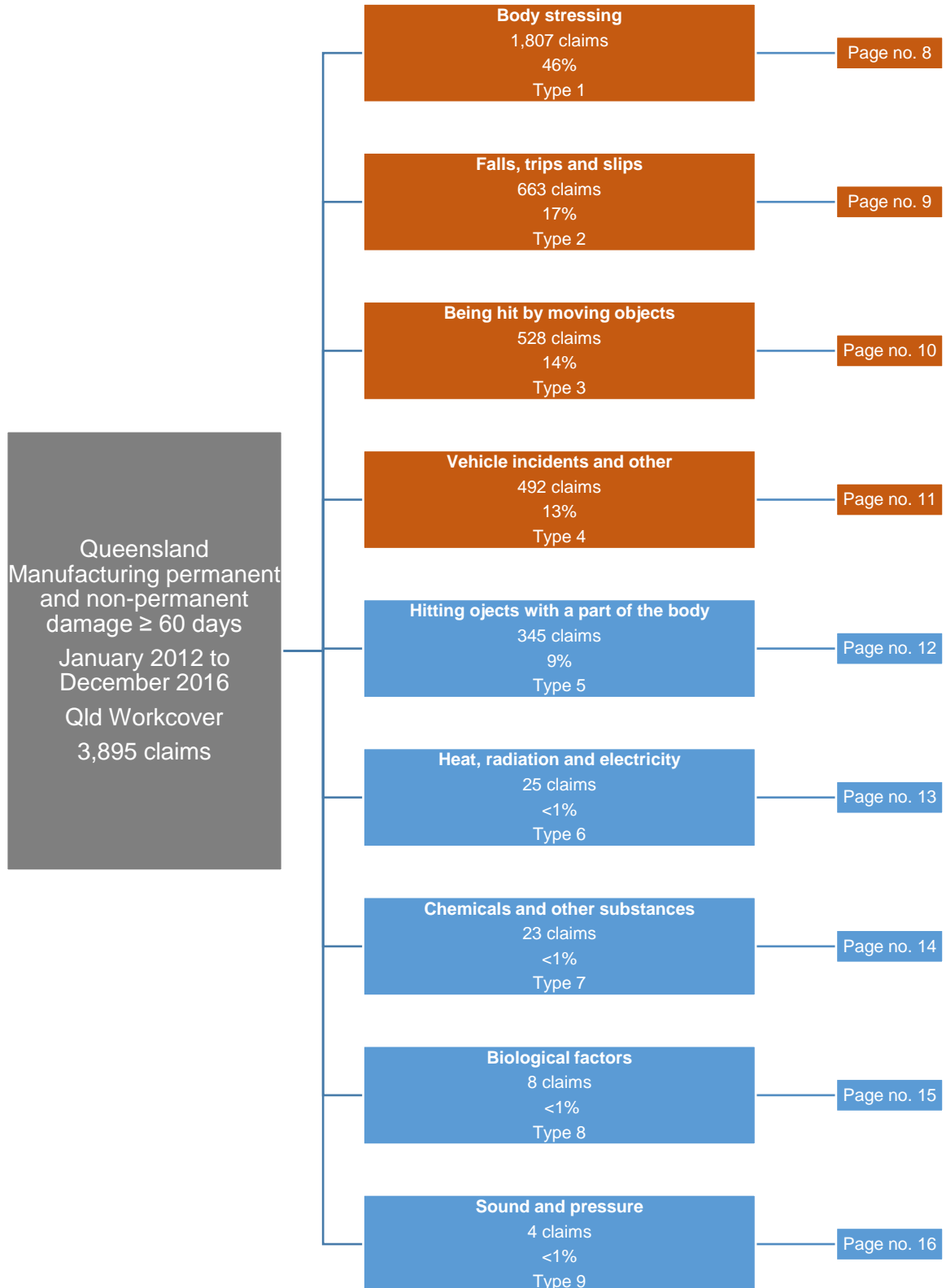
Chart 2. Claims rates by age group (2012 to 2016)



Note: the age group rates were calculated using the average number of claims over the period (2012-2016) divided by the 2016 Census labour force numbers multiplied by 1000.

4. Typology by mechanism (group)

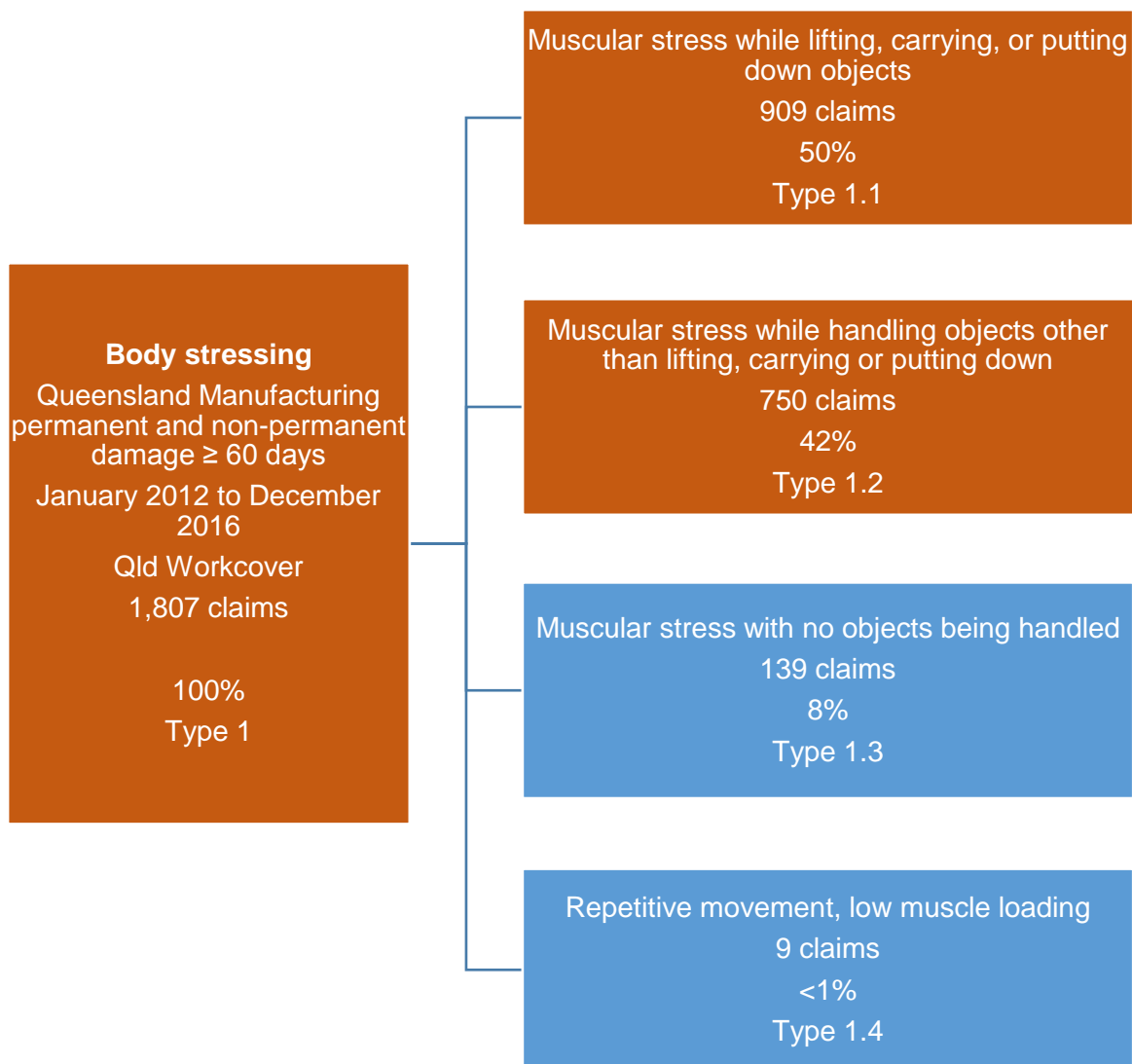
Note: *orange* indicates an area of concern whereas *blue* indicates an area of interest but of less importance.



4.1 Type 1 – body stressing

Body Stressing represents 46 per cent of all Queensland Manufacturing claims ≥ 60 workdays compensated.

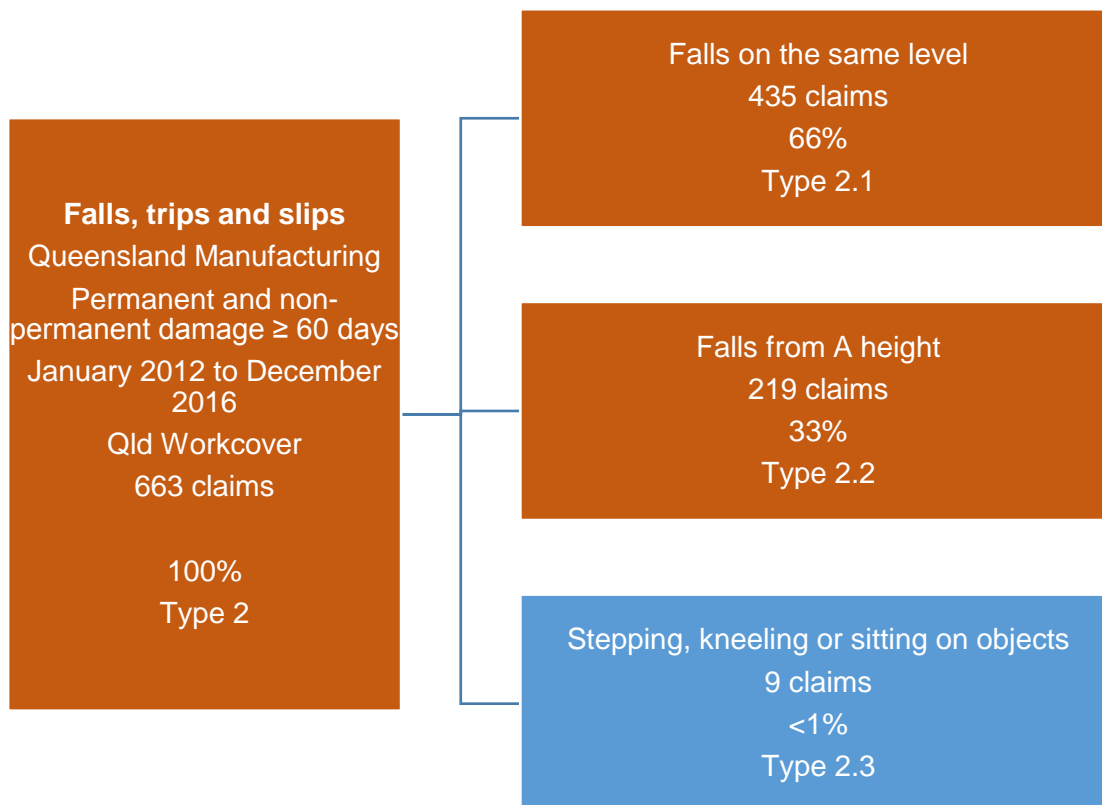
Unsurprisingly, most claims for Body Stressing were for Miscellaneous Labourers (31%) and 39% of those claims related to back injuries.



4.2 Type 2 – falls, trips and slips

Falls, Trips and Slips represents 17 per cent of all Queensland Manufacturing claims ≥ 60 workdays compensated.

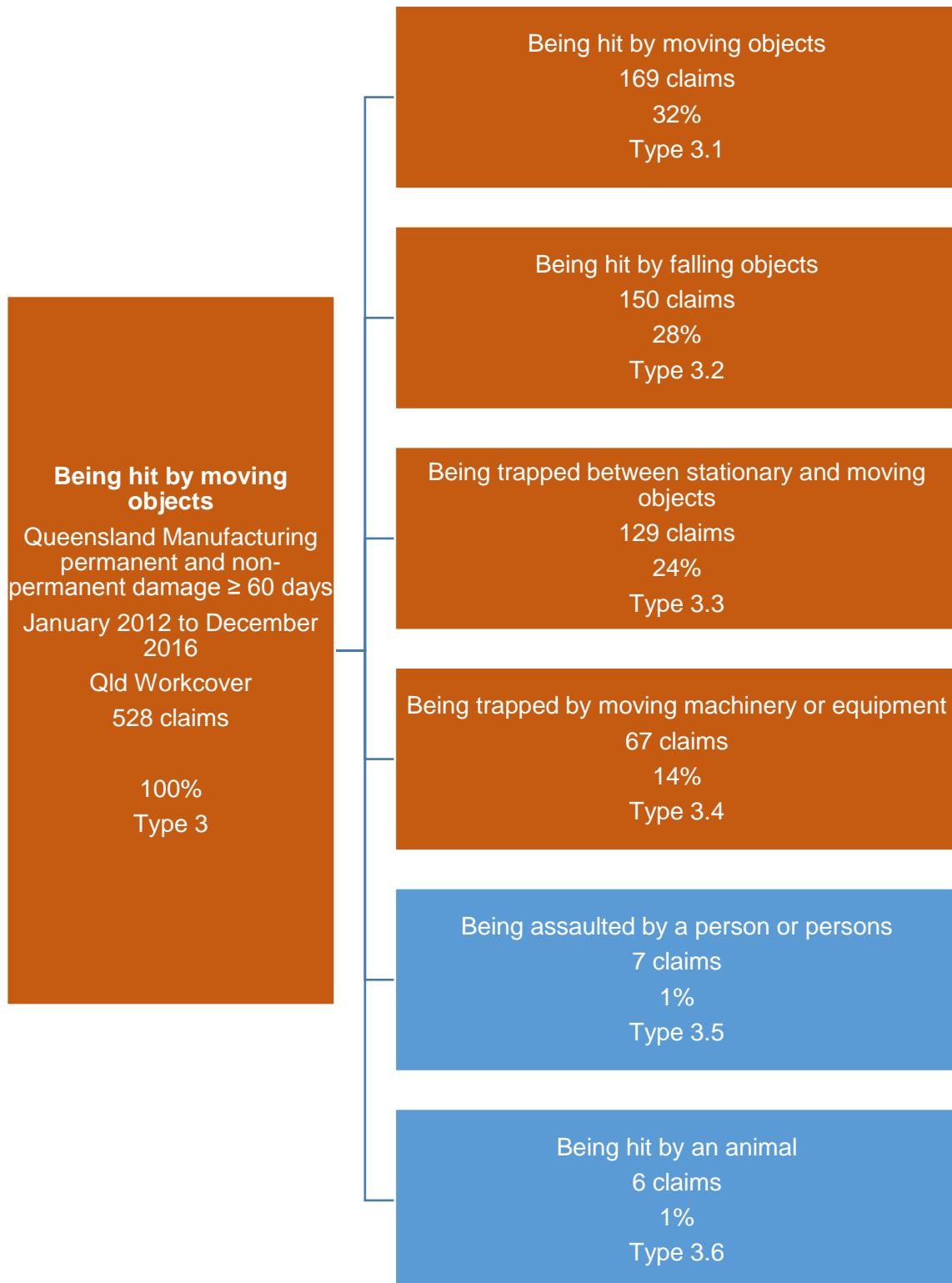
Nearly half (45%) of Falls, Trips and Slips claims were for Labourers and more than a half (52%) of those claims were associated with the lower limbs.



4.3 Type 3 – being hit by moving objects

Being Hit by Moving Objects represents 14 per cent of all Queensland Manufacturing claims ≥ 60 workdays compensated.

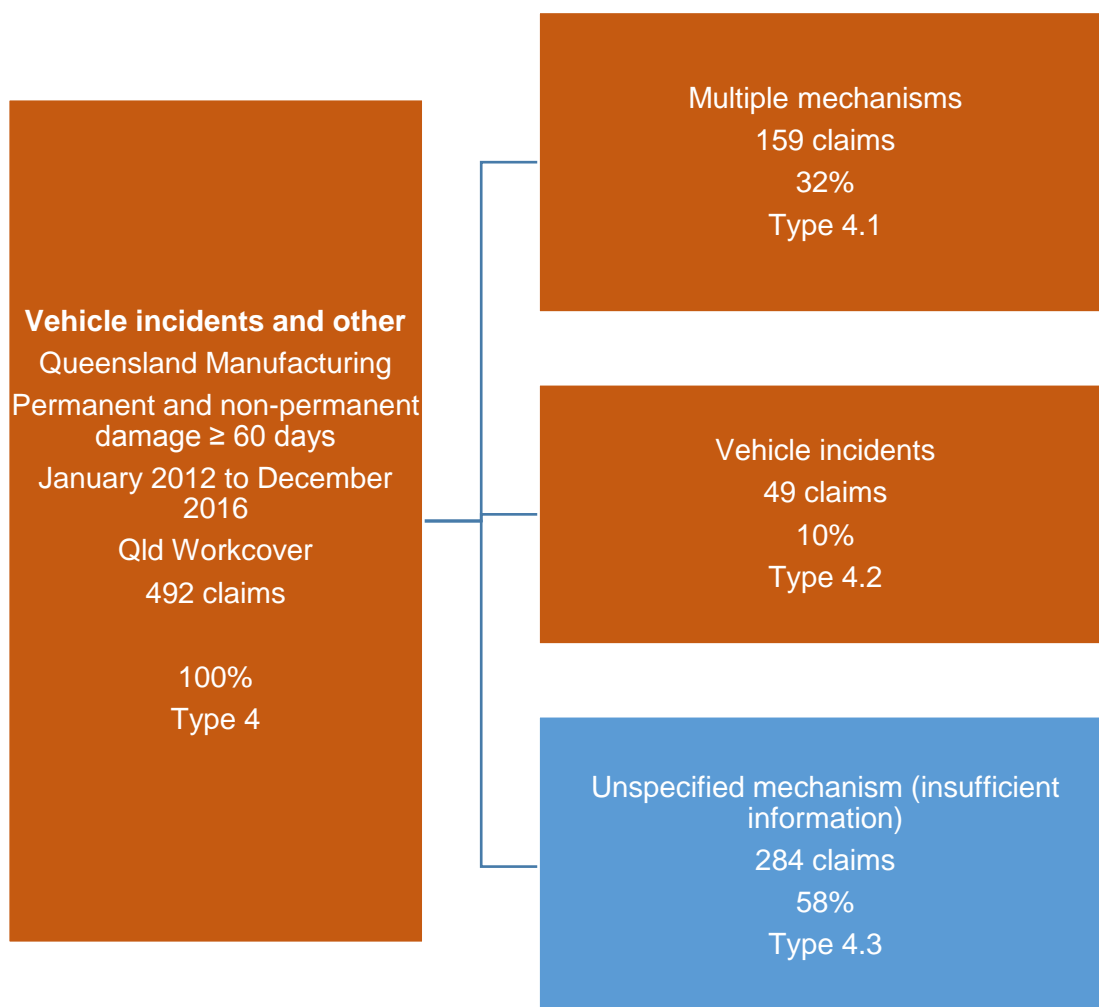
Labourers accounted for more than half of claims (52%) where workers were hit by moving objects, and nearly half of those claims (41%) were associated with the hand, fingers or thumb.



4.4 Type 4 – vehicle incidents

Vehicle Incidents and Other represents 13 per cent of all Queensland Manufacturing claims ≥ 60 workdays compensated.

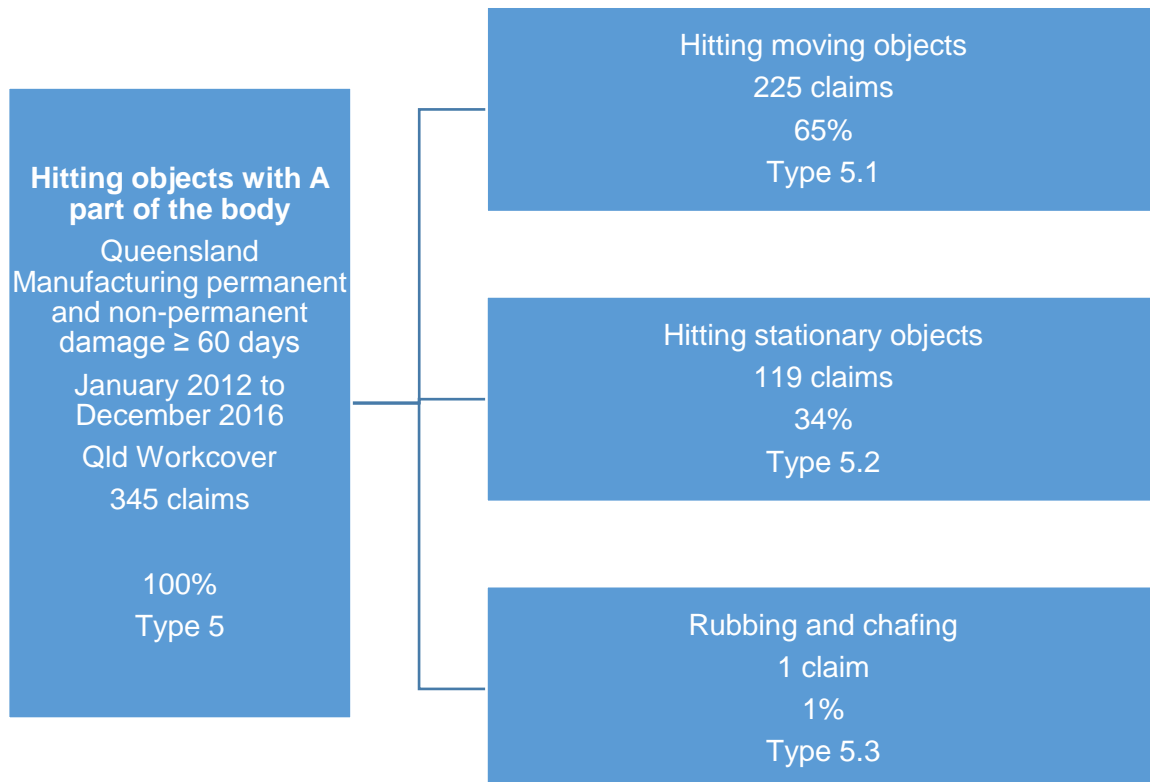
Nearly a half of Vehicle Incidents and Other claims were for Labourers (49%) and 42% of those claims were for Food Process Workers.



4.5 Type 5 – hitting objects with a part of the body

Hitting Objects with a Part of the Body represents nine (9) per cent of all Queensland Manufacturing claims ≥ 60 workdays compensated.

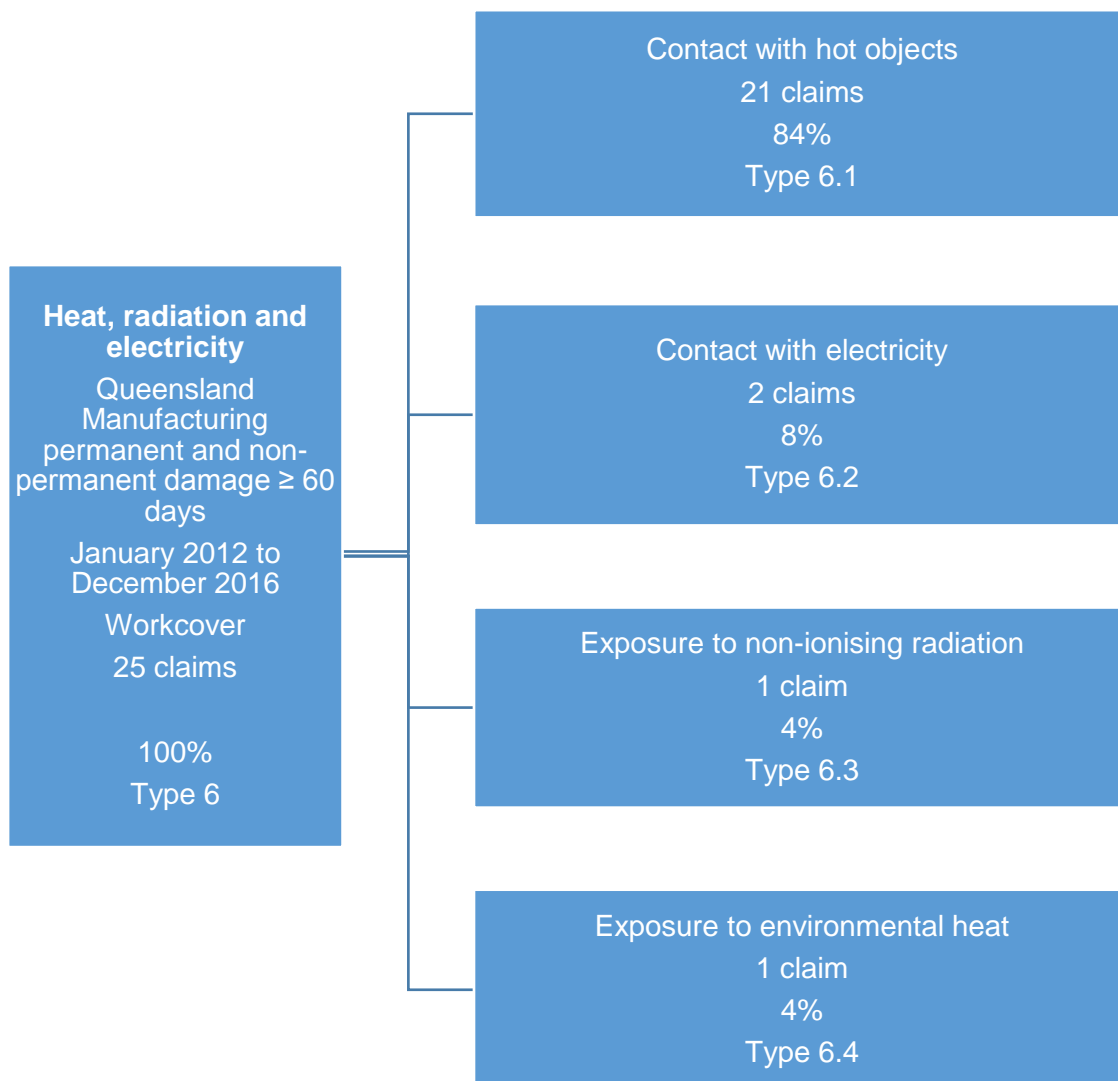
Labourers accounted for nearly a half (45%) of claims for this mechanism group and almost a half of those claims (44%) were associated with the hand, fingers or thumb.



4.6 Type 6 – heat, radiation and electricity

Heat, Radiation & Electricity represents less than one (1) per cent of all Queensland Manufacturing claims ≥ 60 workdays compensated.

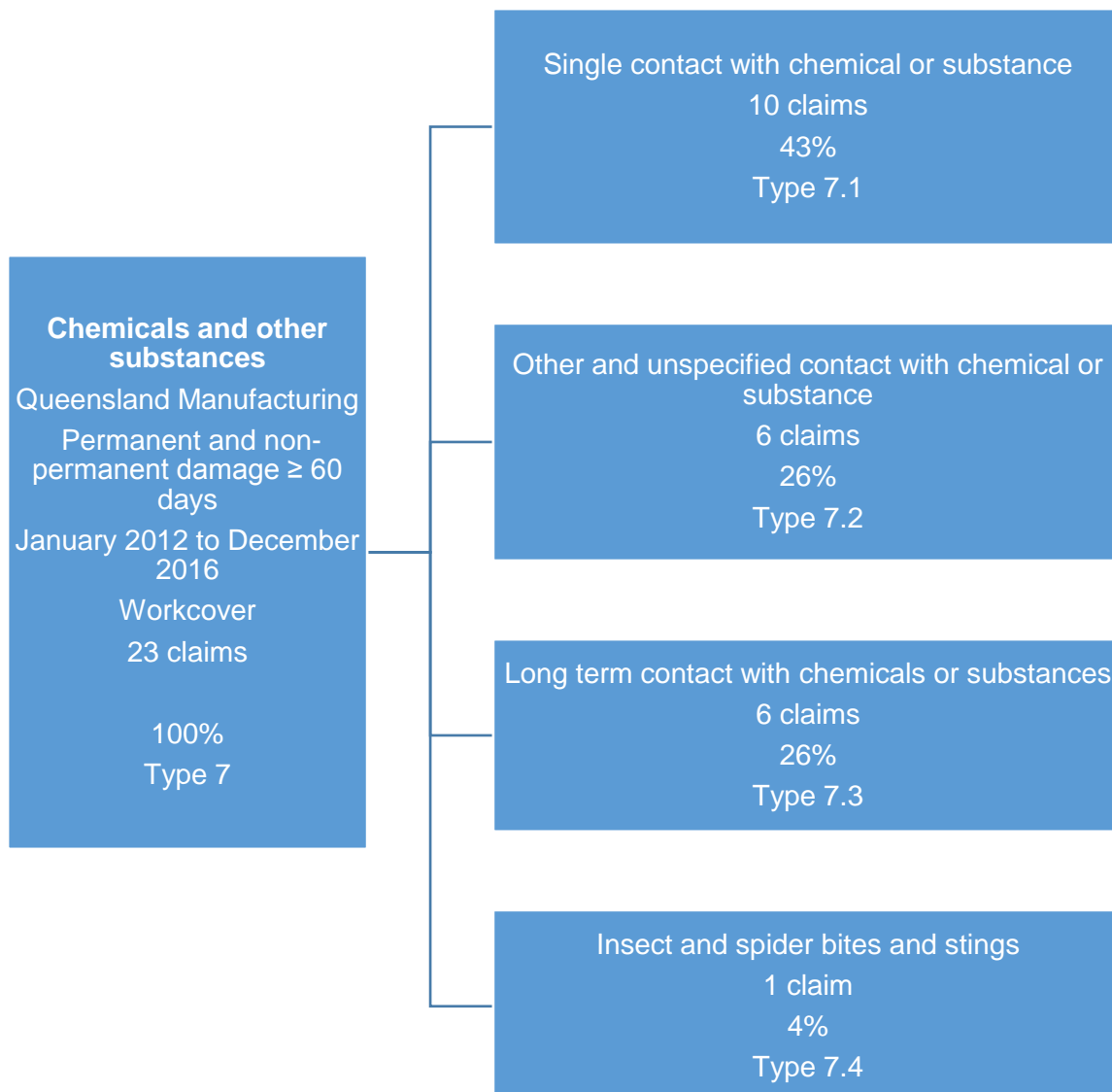
Contact with Hot Objects was the cause of most claims in this mechanism group making up 84% of the total. The occupations most affected by hot objects were Labourers (9 claims or 43%) and Technicians and Trades Workers (9 claims or 43%).



4.7 Type 7 – chemicals and other substances

Chemicals and other substances represents less than one (1) per cent of all Queensland Manufacturing claims ≥ 60 workdays compensated.

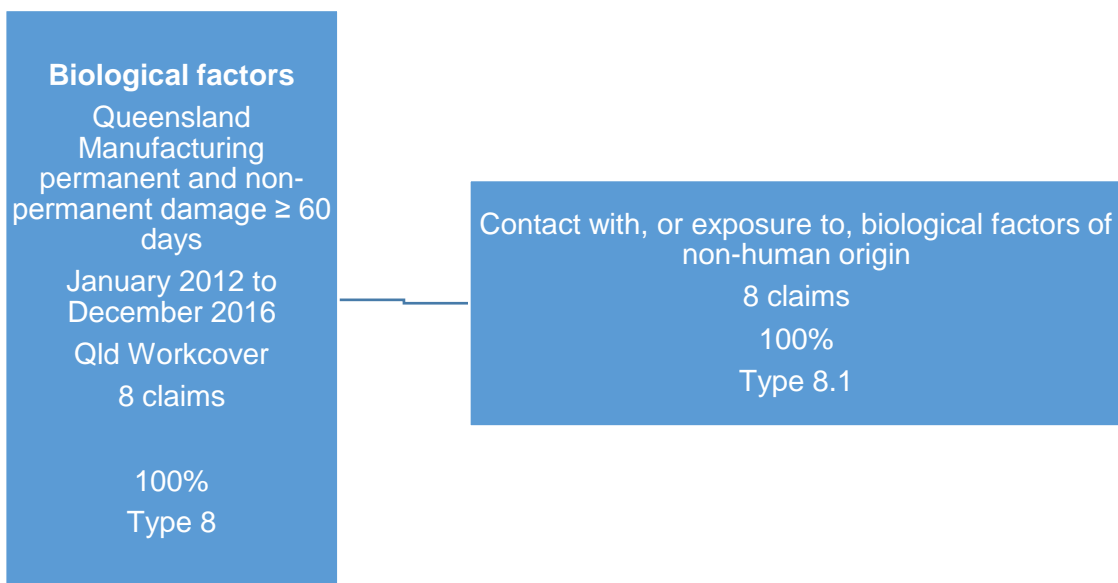
Contact dermatitis (26%) and chemical burns (17%) accounted for nearly half of these claims (43%).



4.8 Type 8 – biological factors

Biological Factors represents less than one (1) per cent of all Queensland Manufacturing claims ≥ 60 workdays compensated.

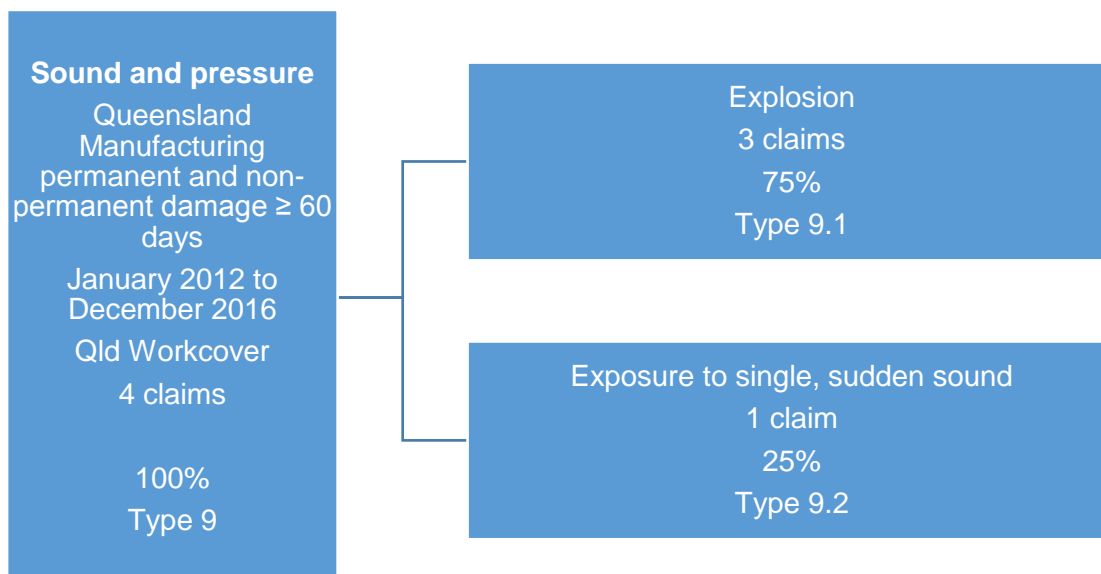
Q-Fever accounted for six claims or 75% and most of these were for Labourers (5 claims or 83%), in particular, Food Process Workers (4 claims or 67%).



4.9 Type 9 – sound and pressure

Sound and pressure represents less than one (1) per cent of all Queensland Manufacturing claims \geq 60 workdays compensated.

These claims were evenly split between Machinery Operators and Drivers and Technicians and Trades Workers. Injuries were diverse and included post-traumatic stress disorder, traumatic deafness, fractures and foreign body in eye/ ear etc.



5. Typology – summary of key findings

Over three quarters of claims with 60 or more workdays compensated were the result of either body stressing, falls, being hit by moving objects.

Body stressing injuries represent almost a half of all relevant Manufacturing claims. Body stressing injuries were mainly the result of either carrying or lifting objects.

Fall related injuries represent 17 per cent of all relevant Manufacturing claims. Over two thirds of the fall related injuries were due to a fall on the same level. Over the period, a total of two Manufacturing workers were fatally injured due to a fall.

Injuries resulting from being hit by moving objects represent 14 per cent of all relevant Manufacturing claims. On average, one Manufacturing worker per year was fatally injured over the period due to being hit by a moving object.

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