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| Forklift safety |
| Target core skillsThis task covers ACSF:* Writing and Numeracy at Level 2
* Reading, Writing and Numeracy at Level 3
* Numeracy at Level 4.
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| Target audienceThis task is designed for candidates who have some experience with operating forklifts or with some experience in developing traffic management plans for forklifts. |
| Content coverageThis task covers some skills, knowledge and specific terminology relating to the safe use of forklifts. |
| Instructions to assessorThis task requires the candidate to read all the questions and write, or work out appropriate answers. Assessors may need to assist candidates who are operating at Level 2 in Reading, Writing or Numeracy. Any support provided will need to be taken into account when making a decision about the final ACSF skill level rating.In question 1 the rating for Writing can be ACSF Level 2 or 3 depending on the complexity of the answer provided.Question 3 requires the candidate to read one text type and to reproduce the information in another text type. A Level 3 response would include a clear and succinct list of the eight major causes of a forklift overturning, using appropriate layout, grammatical forms and vocabulary.  |
| ACSF mapping |
| **Question** | **ACSF skill level indicator** | **Domains of Communication** |
| 1a1b1c | 3.03 3.04 2.05 or 3.05 2.06 or 3.06 3.03 3.04 2.05 or 3.052.06 or 3.063.03 3.04 2.05 or 3.052.06 or 3.06 | Workplace and employment and/orEducation and training |
| 2 | 3.09 3.10 3.11 or 4.09 4.10 4.11 |
| 3 | 3.03 3.04 3.05 3.06 |
| 4a 4b4c4d | 2.093.03 3.04 2.093.09 3.10 3.11 |

# Forklift safety

Note: The information in this task has come from [www.worksafe.vic.gov.au/forklift](http://www.worksafe.vic.gov.au/forklift), viewed 5 September 2012.

1. Read the paragraph below and answer the questions that follow.

In warehouses and factories, shipping yards and freight terminals across Victoria forklifts are used to lift, stack and transfer loads. WorkSafe Victoria has a zero tolerance approach to the unsafe use of forklifts – one of the most dangerous pieces of equipment found at Victorian workplaces.

To be effective, a forklift must be manoeuvrable. To achieve manoeuvrability, forklifts are designed to be compact, making them less stable than other vehicles and mobile plant. Forklifts have a range of limitations, from maximum load weight to speed. These factors affect the operator and the forklift itself. Employers should ensure the workplace conditions suit the forklift and the tasks it performs. Effective traffic management planning, intelligent systems fitted to forklifts (Smart Forklifts) and appropriate operator behaviour are the three major contributors to minimising the incident of pedestrian injuries.

1. Explain the following sentences in your own words.

*WorkSafe Victoria has a zero tolerance approach to the unsafe use of forklifts*

*To be effective, a forklift must be manoeuvrable.*

*Forklifts have a range of limitations.*

1. Why do you think WorkSafe Victoria provides very strong advice about forklift safety?

1. According to the text what should employers do to minimise pedestrian injuries?

1. There were 56 reported fatalities involving forklift trucks in the period 01.01.85 to 30.01.06. This figure was comprised of:
* 16 pedestrians crushed by falling loads
* 7 pedestrians struck by travelling forklift
* 7 pedestrians crushed by manoeuvring forklift
* 10 operators crushed by forklift in tipover/rollover
* 7 operators crushed by unexpected movement of forklift
* 8 falls from forklift, fork arms or loads
* 1 operator overcome by exhaust fumes.

In the space below sketch a pie chart that represents these figures. Mark up the segments on your sketch.

1. The most dangerous aspect of a forklift operator’s work is in the forklift overturns. This is the leading cause of deaths involving forklifts, accounting for one in six deaths. A major cause of forklifts tipping over is when the forks are elevated with no load. Forklifts are also at more risk of overturning if they try and turn too sharply or when they are travelling across an incline or uneven ground. Travelling with a raised load can also put the forklift at risk of turning over. Instability is obviously a risk factor as well. A forklift may become unstable when it is carrying a load forwards down a slope or when the load is unevenly balanced. If a forklift brakes hard when it is loaded this can also cause it to overturn.

Make a dot point list of the major causes of a forklift overturning:

1. The table below shows the minimum braking distance for common forklifts. It assumes an even surface and an alert operator.

Use the information in the table to provide answers to the following questions.

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| **Reaction distance and total stopping distance** |
| Speed (km/h) | 6 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
| Speed (m/sec) | 1.7 | 3.3 | 3.9 | 4.4 | 5 | 5.6 | 6.1 |  |
| Distance travelled while driver reacts and begins to apply brakes in an emergency (m) | 2.5 | 5 | 5.8 | 6.7 | 7.5 | 8.3 | 9.2 |  |
| Total emergency stopping distance (m) | 2.9-3.2 | 7-8 | 8-10 | 9.5-12 | 11-14 | 13-16.5 | 14.5-19 |  |

1. What is the minimum stopping distance if the forklift is travelling at 16 km/h?
2. What is the maximum stopping distance if the forklift is travelling at 20 km/h?
3. Fill in the gaps in the following sentences

At a speed of 14km/h, a forklift will travel \_\_\_\_\_\_\_\_ metres in one second and need at least \_\_\_\_\_\_\_\_ metres to stop safely.

Even at 6km/h (walking pace) a forklift driver will take \_\_\_\_\_\_\_\_ metres to react and apply the brakes. He will need at least \_\_\_\_\_\_\_\_ metres to stop.

1. The last column in the table is shaded. Fill in the empty cells by estimating the relevant speed and distance. Show how you worked out your answer.