

Title	Demonstrate knowledge of maintenance and transportation requirements to convey ready mixed concrete to sites by truck		
Level	3	Credits	4

Purpose	People credited with this unit standard are able to demonstrate knowledge of: routine concrete truck maintenance; factors that affect the transportation of ready mixed concrete by truck; and factors to be considered when assessing conditions for the delivery and discharge of ready mixed concrete by truck.
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Classification	Concrete > Concrete Production
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Available grade	Achieved
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Guidance Information

- Definition**
Additives refers to materials, such as pigments or fibres that are added to the concrete mix.
Admixtures refers to chemicals added to concrete that modify the hardened or plastic properties of concrete (e.g. a set retarder or a water reducer).
Workplace practice refers to the documented procedures specific to a workplace which set out the standard and required practices of that workplace.
- Credit for this unit standard indicates compliance with industry practice. *Industry practice* refers to the ability to demonstrate knowledge that reflects the productivity, uniformity, finish quality and material economies currently accepted within industry.
- Legislation and publications relevant to this unit standard include:
 Health and Safety at Work Act 2015
 Health and Safety in Employment Regulations 1995
 Land Transport Amendment Act 2009
 Resource Management Act 1991
 NZS 3104:2021 *Specification for Concrete Production* available from Standards New Zealand <http://www.standards.govt.nz>.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of routine concrete truck maintenance.

Performance criteria

- 1.1 Servicing and maintenance procedures for concrete trucks are described in accordance with workplace practice.
- Range oil check, water check, tyre check, fuel check, ancillary equipment check, truck safety systems check, regularly scheduled servicing, Waka Kotahi NZ Transport Agency requirements.
- 1.2 Cleaning requirements and methods for concrete trucks and ancillary equipment are described in accordance with legislative requirements and workplace practice.
- 1.3 Procedures for dealing with mechanical breakdowns are identified and described in accordance with workplace practice.

Outcome 2

Demonstrate knowledge of factors that affect the transportation of ready mixed concrete by truck.

Performance criteria

- 2.1 Factors contributing to truck rollover are described and actions for avoidance are explained in accordance with workplace practice.
- Range road surface, camber, corners, gradient, slosh effect, static rollover threshold, driver fatigue, speed.
- 2.2 Factors during transportation that impact on delivered ready mix concrete are described.
- Range water, additives, speed of mixer rotation, duration in transit, weather, temperature, internal condition of mixing bowl, build up, mixer blade condition.

Outcome 3

Demonstrate knowledge of factors to be considered when assessing conditions for the delivery and discharge of ready mixed concrete by truck.

Performance criteria

- 3.1 Hazards associated with site access are identified and controls explained in accordance with legislation and workplace practice.
- Range six hazards and controls.

- 3.2 Factors affecting quality of concrete on site are explained in accordance with workplace practice.

Range duration of discharge, water added, wait time, additives and admixtures, method of placement

- 3.3 Checks to be performed prior to discharge of concrete are identified and described.

Range load matches dockets, site access, location of pour.

Replacement information	This unit standard replaced unit standard 12039.
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Planned review date	31 December 2027
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	11 December 2009	31 December 2024
Review	2	24 November 2022	N/A

Consent and Moderation Requirements (CMR) reference	0048
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Waihangara Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaararau.nz if you wish to suggest changes to the content of this unit standard.