



**Supporting your fleet safety,  
efficiency and compliance**



## **WTR Endorsement Study Guide**

Unit Standards 16701, 16702, 16703

Demonstrate knowledge and skills for driving on a road for endorsement

W (wheels) T (tracks) R (rollers)

V31.03.2025

Whilst every effort has been made to ensure the accuracy of this publication the contents do not constitute legal advice and should not be relied upon as such. It does not override legislation. No liability is assumed by TR Driver Training Limited for any losses by any person relying directly or indirectly on the contents of this publication. If the user of this publication is unsure whether the material is correct, they should make direct reference to the relevant legislation. TR Driver Training is registered and accredited as a private training establishment by the New Zealand Qualifications Authority (NZQA) under the Education and Training Act 2020 and its subsequent amendments. The copyright of this publication is the property of TR Driver Training Limited. No part of this may be reproduced in any way without prior written permission, P O Box 12541, Penrose, Auckland 1642, New Zealand.

## Introduction

### **Important, please read**

This study guide provides you with the knowledge you need to complete the Wheels, Tracks and Rollers unit standard assessment. As this is a licence endorsement to drive a vehicle on the road, the theory is a closed book assessment, so study the information and complete the question starting on page 6 to help prepare for the assessment.

<b>Special type vehicle</b>	<b>Class 1 Full</b>	<b>Class 2 Full</b>	<b>Class 4 Full</b>
Rollers (R) or self-laying tracks (T)	Not more than 18,000 kg gross laden weight; (GLW)	More than 18,000 kg GLW	
Wheels (W) when driven on a road at a speed <b>not exceeding</b> 30kph	Not more than 18,000 kg GLW	More than 18,000 kg GLW	
Wheels (W) when driven on a road at a speed <b>exceeding</b> 30kph	Not more than 6,000 kg GLW	More than 6,000 kg but not more than 18,000 kg GLW	More than 18,000 kg GLW
Wheels (agricultural vehicle) special provisions available for special type wheeled vehicles that are agricultural motor vehicles and are driven on a road at a speed not exceeding 40kph	Not more than 18,000kg GLW	Not more than 18,000kg (note 1)	

Note 1.

Special type wheeled endorsement not required where class 2 full licence held and;

- a. Is also an agricultural vehicle; and
- b. Has a gross laden weight of less than 18,000kg; and
- c. Is driven at a speed not exceeding 40kph

### **Licence renewal**

The expiry date for a W, T or R endorsement is the same as your current full licence, so it is renewed at the same time. There is no need to re-sit the test

### **Assessment**

The assessment includes a short, **closed book** theory test, followed by a practical drive on the vehicle.

### **Completion of Assessment**

At the successful completion of the assessments, you will receive an NZTA certificate to take to an approved licence issuing office. Your licence will be updated to show the new endorsements. The certificate is not a licence

### **Task 1**

Describe special-type wheel/roller/track vehicles and the legal requirements relating to driving the vehicle on a road.

### **Wheels**

The following vehicles are examples of special type wheeled vehicles; however, other types of vehicles may fall into the licence endorsement requirement.

Loader / scraper / wheeled excavator / grader / off-road dump truck /skid steer loader

### **Rollers**

The following vehicles are examples of special type roller vehicles; however, other types of vehicles may fall into the licence endorsement requirement.

Rubber multi tyre / double steel drum vibrator / steel wheel compactor / triple-drum static / steel drum and rubber tyre combination / sheep foot

You should also be aware when operating on a gradient of **the poor traction** of a steel drum roller. The **roller must always face uphill**, with driving wheels to the **rear of the machine**

### **Tracks**

The following vehicles are examples of special type tracked vehicles; however, other types of vehicles may fall into the licence endorsement requirement.

Excavator / bulldozer / military tank / tracked crane / skid steer / crawler loader / portable crusher

Whenever you are manoeuvring a special-type tracked vehicle on a gradient the driving axle should be at the **rear** of the machine.

### **Rail Control Authority (RCA)**

Before driving a track vehicle over a **railway line**, a permit must be sought from the KiwiRail or their delegate. This is to ensure operations are aware of what is happening and to avoid damage to railway lines

### **Safe parking of special type vehicles**

When parking a special type vehicle on a road it should be positioned as far as possible to the **left** side of the road and facing **forward**

When parking a special type vehicle during the hours of **darkness** the driver must ensure that the vehicle is visible by either being illuminated from;

- a) an artificial source or,
- b) light from both a **forward**-facing position lamp (or **dipped beam** headlamp) and a rearward facing position lamp fitted on the side of the vehicle that is closest to the **middle** of the road. (if two rearward facing lamps are fitted **both** must be illuminated.)

### **Position of attachments**

When manoeuvring a special type on a gradient, any attachments like bucket and boom should be **forward** and carried **close** to the ground with the drive axle at the **rear**.

### **Environmental factors affecting safe driving on a road**

The environment you are operating in will affect the vehicle's safe operation. The key factors to be aware of are:

- **Weather** conditions– will result in reduced friction and affect the steering and braking
- **Reduced** visibility – due to low light conditions, you need to see and be seen
- Uneven or rough **surface** – may reduce the stability of the vehicle
- Vehicle stability may be affected by the **camber** of the road or the **steepness** of the slope/gradient
- Other road users – vehicles and **pedestrians**

## Precautions to reduce the risk while driving on a road

- **Hazard** lights / rotating **beacons** – to draw attention to the vehicle
- **Reduce** speed – when travelling around
- Sound the **horn** – if you think it is necessary
- Deferring travel – until the traffic is not so **busy**
- **Additional** lighting – in **low** light conditions
- **Hi-vis** – wear the correct safety clothing

Additional precautions are:

- Temporary **signs** put in place
- Have people on **traffic** control
- Position **cones** and/or **barriers** to assist with traffic control

## Speed limits for special type vehicles

Speed for these vehicles is related to their suspension system and road wheels.

Vehicles fitted with springs or other effective suspension systems must not exceed **90km/h** or the posted speed limit, whichever is lower

Vehicles not fitted with springs or other effective suspension systems must not exceed **45km/h** or the posted speed limit, whichever is the lower

## Preventing damage to roads, bridges or culverts

Special-type vehicles, including those fitted with self-laying tracks, a vehicle fitted with a metal tyre or other non-pneumatic tyre, or with a tyre with studs, cleats, lugs or other gripping devices that may cause damage to roads, bridges or culverts cannot be operated on a road unless either:

The tyre is fitted with temporary **gripping** devices used in appropriate conditions, or **permission** has been obtained from the road controlling authority.

## Practical Assessment

For the practical assessment, you must inspect the vehicle to ensure that it is safe and legal to drive on a road. You must inspect the following:

- Condition of rollers/tyres/tracks
- Rollover protection system
- Seat belts and seat adjustment
- Mirrors
- Clear vision through windscreen
- Lights where fitted
- Cracks in boom
- Oil leaks
- Vandalism
- Others

You will then be required to conduct a function test of the vehicle’s hydraulics, steering and brakes before you complete the drive.

You will also be assessed on the way you mount and dismount the vehicle.

**GOOD LUCK**

**Complete the following questions as final preparation for your theory assessment**

1. Name 3 different special types of WHEELED vehicles

a.	
b.	
c.	

2. A special–type wheeled vehicle (that is also an agricultural motor vehicle) can be driven on a full class 1 licence and with a “W” endorsement when the GLW is not more than \_\_\_\_\_kg and is not driven at a speed exceeding \_\_\_\_\_kph.

A special–type wheeled vehicle (that **is not** an agricultural motor vehicle) can be driven on a full class 1 licence and with a “W” endorsement when the GLW is not more than \_\_\_\_\_kg, at speeds exceeding \_\_\_\_\_kph.

A special–type wheeled vehicle (that **is not** an agricultural motor vehicle) can be driven on a full class 2 licence and with a “W” endorsement when the GLW that is more than \_\_\_\_\_kg, if driven at a speed not exceeding \_\_\_\_\_kph.

A special–type wheeled vehicle (that **is not** an agricultural motor vehicle) with a GLW of more than 18,000kg and driven at a speed exceeding 30kph must be driven on a Full Class \_\_\_\_\_ licence and with a “W” endorsement.

3. Name 3 different special type TRACKED vehicles

a.	
b.	
c.	

4. When operating a steel drum roller on gradient, the most important safety factors to remember are; (CIRCLE TWO)

- a. The work will take longer
- b. They have poor traction
- c. The roller must always face uphill, with driving wheels to the rear
- d. They are very noisy

5. Name 3 different special type ROLLER vehicles

a.	
b.	
c.	

6. Before driving a tracked vehicle over a \_\_\_\_\_ a permit must be obtained from KiwiRail or their delegate authority.

7. A full class \_\_\_ licence and appropriate endorsement will allow you to drive a special-type roller or tracked vehicle with a GLW **not more** than 18,000kg.

8. A full class \_\_\_ licence and appropriate endorsement will allow you to drive a special-type roller or tracked vehicle with a GLW **of more than** 18,000kg.

9. When is a W, R o T endorsement renewed?

\_\_\_\_\_

10. When parking a special type vehicle on a road it should be positioned as far as possible to the \_\_\_\_\_ side of the road and facing \_\_\_\_\_ .

When parking a special type vehicle during the hours of \_\_\_\_\_ the driver must ensure that the vehicle is visible by either being illuminated from;



a) an artificial source or,

b) light from both a \_\_\_\_\_ facing position lamp (or \_\_\_\_\_ headlamp) and a rearward facing position lamp fitted on the side of the vehicle that is closest to the \_\_\_\_\_ of the road. (if 2 rearward facing lamps are fitted \_\_\_\_\_ must be illuminated).

11. What are the speed limits for a heavy special type wheel, roller, or track vehicle?

Fitted with springs or other effective suspension systems:

\_\_\_\_\_kph or the posted speed limit, whichever is lower.

Not fitted with springs or other effective suspension systems:

\_\_\_\_\_kph or the posted speed limit, whichever is lower.

12. Vehicles fitted with wheels, tracks, or rollers that may damage the road must either:

Be fitted with \_\_\_\_\_ gripping devices, for use in \_\_\_\_\_  
\_\_\_\_\_ or \_\_\_\_\_ must be obtained from the road  
controlling authority.

13. The driving axle should be at the \_\_\_\_\_ and attachments  
\_\_\_\_\_ and \_\_\_\_\_ to the ground when manoeuvring a  
special type vehicle on a gradient.

14. Environmental factors that may affect the safe driving of a special type vehicle are:

- a. Conditions such as reduced friction due to wet surface affecting steering and braking is caused by the \_\_\_\_\_
- b. low light conditions can \_\_\_\_\_ visibility
- c. vehicle's stability may reduce on uneven or rough \_\_\_\_\_

- d. The \_\_\_\_\_ of the road may affect vehicle stability or the \_\_\_\_\_ of the slope/gradient
  - e. Other road users, vehicles and \_\_\_\_\_
15. Precautions taken by an operator to reduce the risk of accidents when driving a special type vehicle on a road are:
- a. Use of \_\_\_\_\_ lights and rotating \_\_\_\_\_
  - b. Travel at a \_\_\_\_\_ speed
  - c. Sound the \_\_\_\_\_
  - d. If the road is \_\_\_\_\_ defer travel
  - e. In \_\_\_\_\_ light conditions have \_\_\_\_\_ lighting
  - f. Wear \_\_\_\_\_ - \_\_\_\_\_ clothing
16. Additional precautions that may be taken to reduce the risk of an accident when operating on a road are:
- a. Temporary \_\_\_\_\_ put in place
  - b. Have people on \_\_\_\_\_ control
  - c. To assist with traffic control position \_\_\_\_\_ and \_\_\_\_\_

**Please bring this handout to the course**  
**You must have steel cap boots for the practical component**