

Correct as at 26th June 2026. It may be superseded at any time.

Extract taken from: Heavy vehicle specialist certification > Towing connections > Drawbars

## 9-2 Drawbars

Certifier categories: **HVET** | **HMTD**

### Reasons for rejection

1. The towing connection of a heavy vehicle recovery vehicle does not comply with NZS 5446.
2. A converter dolly with an oscillating fifth wheel is fitted with a hinged drawbar.
3. A converter dolly fitted with a fixed fifth wheel is fitted with a rigid drawbar.
4. A converter dolly, manufactured after 1 April 2005, with a hinged drawbar and fixed fifth wheel does not have a tandem-axle set.
5. A ballrace turntable fitted to a vehicle has not been securely fastened to the vehicle in accordance with the ballrace turntable manufacturer's instructions.
6. A ballrace turntable fitted to a vehicle has not been maintained within safe tolerance of its original condition.
7. The trailer is not a,
  - a) simple trailer, or
  - b) semi-trailer, or
  - c) full trailer, or
  - d) pole trailer.
8. A drawbar rated 3500kg MTM or over does not meet the requirements of NZS 5446.
9. A drawbar rated less than 3500 kgMTM does not meet the requirements of NZS 5467.
10. The coupling components are worn beyond the manufacturer's specifications.
11. New coupling fasteners have not been used if the coupling installed has been used in service.
12. The fasteners used do not meet the coupling manufacturer's specifications.
13. A coupling does not have:
  - a) an effective locking device, or
  - b) a separate means of retaining the locking device in the locked position.
14. The locking of the coupling is not readily verifiable by visual inspection.
15. A coupling other than a 50mm or 1?-inch diameter ball coupling does not meet the specifications of NZS 5446: 1987, Code of Practice for Heavy Motor Vehicle Towing Connections: Drawbar Trailers.
16. When fitted to a full trailer a drawbar is extendable and not used for:
  - a) the through loading of stock or goods, or

b) transporting logs

17. An extendable drawbar fitted to a full trailer that is used for the through loading of goods or stock:

a) has more than one set of holes for locking pins, or

b) the locking pins lock when the drawbar is not in the fully extended position.

18. An extendable drawbar fitted to a full trailer used to transport logs:

a) has more than two fixed positions for short logs, or

b) has more than one sliding position for long logs, or

c) has more than one fixed position for storage of the drawbar when being transported on another vehicle.

19. An extendable drawbar is not fitted with,

a) endstops, or

b) a secondary locking device that will prevent separation if the primary locking device fails.

20. A drawbar has not been manufactured to the Certificate of Design Compliance specifications when an approved design is used for the certification of the component.

21. The drawbar has not been attached according to the Certificate of Design Compliance specifications when an approved design is used for the certification of the component.

22. A drawbar has been welded by an operator who is not known or is not qualified in both process and position.

23. The welding does not comply with the AS/NZS 1554 or other appropriate welding standards for the material and welding method employed.

24. A drawbar repair does not comply with the applicable standard.

25. The attachment points and or the drawbar is affected by corrosion or weakening, that is apparent by visual examination, that may make it unsafe.

26. The chassis of a vehicle fitted with a drawbar is of insufficient strength to withstand the loads imposed on it.

27. The length of a towed vehicle other than a semi-trailer exceeds 11.5m.

28. The maximum forward distance of a simple trailer or pole trailer with the drawbar fully extended exceeds 8.5m.

29. The maximum length of a combination vehicle exceeds 20.0m.

30. The inter-vehicle spacing between a towing vehicle and a full trailer, when in a straight line, is less than the greater of 1.0m or half the width of the of the foremost point of the trailer (including its load but excluding the drawbar and dolly assembly).

31. The rear trailing unit distance exceeds 14.5m.

32. The inter-vehicle spacing except for a laden pole trailer exceeds 4.0m.

33. Parts of the towed and towing vehicle, other than its coupling mechanism, come into contact when completing a 360-degree turn at a diameter of 25m.

34. A drawbar originally designed using the Recommended practice for towing connections published by the New Zealand Truck-Trailer Manufacturer's Federation does not meet the requirements of NZS 5446: 1987.

35. The original date of manufacture and attachment to the vehicle of a drawbar cannot be demonstrated.

36. The dimensions, material sizes and all welding details have not been recorded.
37. A full design stress analysis has not been completed or is unavailable.
38. An NDT inspection and report have not been completed to section 7 of AS/NZS 1554.1: 2000 when required.
39. The welds of the drawbar/beam or towbar that are inspected do not meet section 6 of AS/NZS 1554.1.
40. A drawbar that requires re-certification does not meet the requirements for stress or residual life of the re-certification process shown in the charts in [section 12-3](#)
41. A drawbar does not have an identification label as required by the standard (Note 1)(Note 2).
42. A vehicle has been modified in such a way that the braking or braking system may have been affected and it has not been referred to a certifier with the brakes category unless the modification is covered in the vehicle's body builders manual and the manufacturer has supplied written evidence that the vehicle remains within its original brake certification (refer to [Technical bulletin 4](#)).

#### **Note 1**

Where an identification plate is damaged, illegible or lost the original certifier may supply a replacement plate stating the original expiry date provided that the certifier can verify that the drawbar has not been modified, repaired or has not exceeded its expiry date (see [Technical bulletin 14: Lost or illegible identification plates for drawbars, drawbeams and towbars](#)).

#### **Note 2**

From 1 October 2020, where a rating is not applicable 'N/A' must be stamped on the plate.

**Table 9-2-1. Dimension requirements for vehicles and vehicle combinations (abridged)**

Dimension	Distance (metres except where indicated otherwise)
<b>Overall length (excluding collapsible mirrors):</b>	
Towing vehicle, full trailer, simple trailer, pole trailer (excluding load)	11.5
Any other combination of vehicles	20.0
<b>Forward distance (excluding collapsible mirrors):</b>	
Rigid vehicle	8.5 if fitted with tow coupling, 9.5 otherwise
Full Trailer, simple trailer, pole trailer with drawbar at full extension, articulated bus (both front and rear sections), semi-trailer	8.5
<b>Rear overhang:</b>	
Heavy rigid vehicle	4.0 or 70% of wheelbase (whichever is less) for a vehicle whose rearmost axle is a non-steering axle
4.25 or 70% of wheelbase (whichever is less) for a vehicle whose rearmost axle is a steering axle	
Articulated bus, heavy semi-trailer, heavy simple trailer, heavy pole trailer with one axle set	4.0 or 50% of forward distance (whichever is less)
Heavy full trailer, heavy pole trailer with two axle sets	4.0 or 50% of wheelbase (whichever is less)
All other vehicles	4.0
<b>Rear trailing unit distance:</b>	
A-Train, B-Train, towing vehicle and two trailers	14.5

Articulated point of attachment (excluding articulated buses)	No further rearward than the rearmost axle of the towing vehicle or rearmost axle of the leading trailer, and if the towing vehicle is a rigid vehicle and has more than one axle in its rear set, not more than 300 mm rearward of the rear axis of the towing vehicle
<b>Tow coupling position (for towing heavy trailer):</b>	
Full trailer	40% of wheelbase of towing vehicle

## Summary of Legislation

### Applicable references

- NZS 5446: Heavy vehicle towing connections – Drawbeams and drawbars
- AS/NZS 1554 parts 1 to 6
- Welding in the transport industry (NZTA publication) - [Technical bulletin 10](#)
- AS/NZS 2980:2018; Qualification of welders for fusion welding of steels – Additional requirements for Australia and New Zealand
- AS/NZS ISO9606.1: 2017 Qualification testing of welders – Fusion Welding.

### Applicable legislation

- [Land Transport Rule: Vehicle Dimensions and Mass 2002](#)
- [Land Transport Rule: Heavy Vehicles 2004](#)

### General requirements for dimension and mass limits

1. Except as otherwise provided in this section and in 1.2(3) [of the Rule], a vehicle must comply with the applicable requirements in Table 4.1 [of the Rule (abridged in Table 9-2-1), and with other applicable requirements in this section.
2. The inter-vehicle spacing between a towing vehicle and a full trailer, when in a straight line, must not be less than the greater of 1 m or half the width of the foremost point of the trailer (including its load but excluding the drawbar and front dolly assembly).
3. In carrying out a 360-degree turn at the 25-m diameter, no part of a vehicle in a combination, other than its articulation mechanism, may come into contact with the other vehicle in the combination.
4. Requirements 5 to 7 below apply to a drawbar between a towing vehicle and a full trailer.
5. A drawbar may have only one operating position and must not be extendable, except if requirement 6 or 7 applies.
6. A drawbar may be retractable only to facilitate the through loading or unloading of livestock or goods, provided that the drawbar has only one set of holes for locking pins and that the holes are positioned so that the drawbar is fully extended when locked.
7. A trailer that is used to transport logs may have a drawbar with up to three fixed positions and one sliding position, provided that the drawbar has:
  - a) one sliding position for long logs, and
  - b) one or two fixed positions for short logs, and

c) a fixed position for storage of the drawbar when it is out of use while the trailer is being transported on a rigid vehicle or another trailer.

### **Towing requirements (section 4.6)**

8. A trailer must be of one of the following types:

- a) a simple trailer
- b) a semi-trailer
- c) a full trailer
- d) a pole trailer.

9. Except as provided in requirement 11 below, a light motor vehicle may not tow more than one trailer.

10. Despite requirement 10, a tractor may tow two light trailers, provided that the tractor manufacturer's ratings are not exceeded.

11. A heavy motor vehicle may not tow more than one trailer, except if that vehicle is:

- a) an A-train, or
- b) a B-train, or
- c) a rigid vehicle towing a converter dolly coupled to a semi-trailer, or
- d) a rigid vehicle towing two trailers whose total gross mass is less than 20,000kg, provided the rearmost trailer is a light trailer, or
- e) a vehicle operating as an overweight or overdimension vehicle.

### **Heavy Vehicle Rule**

#### **Towing connection requirements**

12. Towing connection components fitted to a vehicle must ensure that a secure connection can be maintained between the towing and towed vehicles under all conditions of loading and operation for which the vehicle was constructed.

#### **Ballrace turntables (section 3.7)**

13. A ballrace turntable fitted to a vehicle must be securely fastened to the vehicle in accordance with the ballrace turntable manufacturer's instructions.

14. A ballrace turntable fitted to a vehicle must be maintained within safe tolerance of its original condition.

#### **Drawbars (section 4.5)**

15. A drawbar fitted to a vehicle used in a combination must, unless requirement 17 applies, comply with NZS 5446:

16. A drawbar fitted to a vehicle that, before 1 February 1989, was certified for compliance with the Recommended practice for towing connections published by the New Zealand Truck-Trailer Manufacturers' Federation, must, by the date of issue of the first Certificate of Fitness issued on or after 1 March 2006:

a) comply with NZS 5446: 1987, Code of Practice for Heavy Motor Vehicle Towing Connections: Drawbar Trailers,  
or

b) be replaced with a drawbar that complies with NZS 5446: 1987, Code of Practice for Heavy Motor Vehicle  
Towing Connections: Drawbar Trailers.

17. A telescopic drawbar must have endstops or a secondary locking device to prevent separation if the primary locking  
device fails.

18. A drawbar, fitted to a vehicle, that is modified or repaired on or after 31 March 2005 or 2007 must comply with NZS  
5446: 1987, Code of Practice for Heavy Motor Vehicle Towing Connections: Drawbar Trailers.

#### **Couplings (section 4.6)**

19. A coupling must have an effective locking device and a separate means of retaining this device in the locked  
position.

20. Locking of a coupling must be readily verifiable by visual inspection.

21. A hook, pin or ball-and-socket type coupling for towing a vehicle must comply with NZS 5446.

Page amended **1 October 2020** (see [amendment details](#))