Correct as at 5th June 2026. It may be superseded at any time.

Extract taken from: Heavy vehicle specialist certification > Towing connections

9 Towing connections

9-1 Drawbeams

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

Reasons for rejection

See also Table 3-1-1. in the Dimensions section

1. The towing connection fitted to the rear of a heavy vehicle recovery vehicle does not comply with NZS 5446.

2. A drawbeam rated 3500kg MTM or over does not meet the requirements of NZS 5446.

3. The coupling components are worn beyond the manufacturer's specifications.

4. New coupling fasteners have not been used if the coupling installed has been used in service.

5. The fasteners used do not meet the coupling manufacturer's specifications.

6. A coupling does not have:

    a) an effective locking device, or

    b) a separate means of retaining the locking device in the locked position, or

    c) a failsafe system that prevents unintentional release of an air assisted automatic coupling device (if fitted).

    - See also **Safety alert: Risk of vehicle separation – air operated auto coupling devices**

7. The locking of the coupling is not readily verifiable by visual inspection.

8. A coupling other than a 50mm or 1?" diameter ball coupling does not meet the specifications of NZS 5446.

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

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

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

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

13. A drawbeam repair does not comply with the applicable standard.

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

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

16. The length of a towing vehicle exceeds 11.5m.

17. When towing a full trailer (GVM exceeding 3500kg) the tow coupling is located further rearwards of the rear axis of the rigid towing vehicle than 45% of the towing vehicle's wheelbase.

18. When towing a simple trailer (GVM exceeding 3500kg) the tow coupling is located less than 0.7m rearwards of the rear axis of the towing vehicle.

19. When towing a simple trailer (GVM exceeding 3500kg) the tow coupling is located more than 50% of the towing vehicle's wheelbase rearwards of the rear axis of the towing vehicle.

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

21. 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.

22. A drawbeam 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.

23. The original date of manufacture and attachment to the vehicle of a drawbeam cannot be demonstrated.

24. The dimensions, material sizes and all welding details have not been recorded.

25. A full design stress analysis has not been completed or is unavailable.

25. An NDT inspection and report have not been completed to section 7 of AS/NZS 1554.1 when required.

26. The welds of the drawbar/beam or towbar that are inspected do not meet section 6 of AS/NZS 1554.1: 2000.

27. A drawbeam 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**

28. A drawbeam does not have an identification label as required by the standard (Note 1) (Note 2).

29. 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 drawbeam 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.

Note: for dimension requirements see **Table 3-1-1 in the Dimensions section**

Summary of legislation

Applicable references

- NZS 5446: Heavy vehicle towing connections – Drawbeams and drawbars
- NZS 5467: 1993
- 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: Passenger Service Vehicles 1999**
- **Land Transport Rule: Vehicle Dimensions and Mass 2016**
- **Land Transport Rule: Heavy Vehicles 2004**.

Land Transport Rule: Vehicle Dimensions and Mass 2016

General requirements for dimension and mass limits

1. Except as otherwise provided in this section and in **Land Transport Rule: Vehicle Dimensions and Mass 2016**, a vehicle must comply with the applicable requirements of **Land Transport Rule: Vehicle Dimensions and Mass 2016**, 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 1m 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 25m 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. A drawbeam must not be sliding or adjustable.

Towing requirements (section 4.6)

5. 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.

6. Except as provided in requirement 7 below, a light motor vehicle may not tow more than one trailer.

7. Despite requirement 6, a tractor may tow two light trailers, provided that the tractor manufacturer’s ratings are not exceeded.

8. 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.

9. Except as specified in requirement 10, a light motor vehicle may tow a trailer, provided that, if the light motor vehicle is towing a heavy trailer, the gross mass of the trailer does not exceed 1.5 times the gross mass of the towing vehicle or the maximum towed mass specified by the manufacturer.

10. A light passenger service vehicle may not tow a trailer that has a gross vehicle mass of 2000kg or more.

11. A heavy passenger service vehicle may not tow a trailer that has a gross vehicle mass exceeding 3500kg.

12. An articulated bus may not tow a trailer.

Heavy Vehicle Rule

Towing connection requirements

13. 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.

Drawbeams and towbars (section 4.4)

14. A drawbeam fitted to a vehicle used in a combination must, unless requirement 15 applies, comply with NZS 5446 1987, Code of Practice for Heavy Motor Vehicle Towing Connections: Drawbar Trailers.

15. A drawbeam 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 drawbeam that complies with *NZS 5446: 1987, Code of Practice for Heavy Motor Vehicle Towing Connections: Drawbar Trailers.*

16. A drawbeam, fitted to a vehicle before 1 March 2006, must comply with NZS 5446.

Couplings (section 4.6)

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

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

19. A hook, pin or ball-and-socket type coupling for towing a vehicle must comply with NZS 5446 unless it is a 50mm or 1?" ball fitted to a towbar to tow a light vehicle:

20. A device fitted to the front of a vehicle to enable it to be recovered, together with its connection to the chassis, must be suitable for this purpose.

Vehicle recovery service vehicles

21. A towing connection fitted to the rear of a vehicle recovery service vehicle for recovery purposes on or after 1 October 2005 must be designed and constructed in accordance with NZS 5446.

Page amended **4 November 2025** (see **amendment details**)

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)
Overall length (excluding collapsible mirrors):	
Towing vehicle, full trailer, simple trailer, pole trailer (excludinvg load)	11.5
Any other combination of vehicles	20.0
Forward distance (excluding collapsible mirrors):	
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
Rear overhang:	
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
Rear trailing unit distance:	
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
Tow coupling position (for towing heavy trailer):	
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**)

9-3 Towbars

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

Reasons for rejection

1. An articulated bus is fitted with a towing coupling.

2. The trailer is not a:

a) simple trailer, or

b) full trailer, or

c) pole trailer.

3. A towbar rated less than 3500kg MTM does not meet the requirements of NZS 5467.

4. A drawbar rated less than 3500kg MTM does not meet the requirements of NZS 5467.

5. A vehicle fitted with a towbar designed to tow trailers with a gross weight not exceeding 2000kg does not have a means of securely attaching a safety chain or cable.

6. The means of securing the safety chain or cable is not positively attached to the towing vehicle with a mechanical device of sufficient strength that will remain secure under all conditions.

7. The means of securing the safety chain or cable is a chain slot.

8. A trailer under 2000kg does not have a safety chain.

9. The coupling components are worn beyond the manufacturer’s specifications.

10. New coupling fasteners have not been used if the coupling installed has been used in service.

11. The fasteners used do not meet the coupling manufacturer’s specifications.

12. A coupling does not have:

a) an effective locking device, or

b) a separate means of retaining the locking device in the locked position.

13. The locking of the coupling is not readily verifiable by visual inspection.

14. A 50-mm-diameter ball coupling fitted does not comply with NZS 5232: 1993, Specification for Ball-and-Socket Type Trailer Couplings.

15. A 1? inch diameter ball coupling fitted does not comply with the performance and marking requirements of NZS 5232: 1993, Specification for Ball-and-Socket Type Trailer Couplings except that the ball size markings must be 1?".

16. A coupling other than a 50mm or 1? inch diameter ball coupling does not meet the specifications of NZS 5446: 1987.

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

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

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

20. A towbar repair does not comply with the applicable standard.

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

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

23. The length of a towing vehicle exceeds 11.5m.

24. The length of a towed vehicle other than a semi-trailer or a high productivity vehicle exceeds 12.5m.

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

26. The maximum length of a combination vehicle other than a high productivity vehicle where the towed vehicle is a full trailer exceeds 20.0m excluding load.

27. The maximum length of a combination vehicle other than a high productivity vehicle where the towed vehicle is a simple trailer exceeds 22.0m.

28. The maximum length of a combination vehicle other than a high productivity vehicle where the towed vehicle is not a simple trailer or a full trailer, exceeds 20.0m.

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

30. The rear trailing unit distance exceeds 14.5m.

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

32. 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.

33. The original date of manufacture and attachment to the vehicle of a towbar cannot be demonstrated.

34. The dimensions, material sizes and all welding details have not been recorded.

35. A full design stress analysis has not been completed or is unavailable.

36. An NDT inspection and report have not been completed to section 7 of AS/NZS 1554.1: 2000 when required.

37. The welds of the towbar that are inspected and do not meet section 6 of AS/NZS 1554.1: 2000.

38. A towbar 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**

39. A towbar does not have an identification label as required by the standard (Note 1)(Note 2).

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 towbar has not been modified or repaired without subsequent certification (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 9-3-1. Dimension requirements for vehicles and vehicle combinations (abridged)

Dimension	Distance (metres except where indicated otherwise)
Overall length (excluding collapsible mirrors):	
Towing vehicle, full trailer, simple trailer, pole trailer (excludinvg load)	11.5
Any other combination of vehicles	20.0
Forward distance (excluding collapsible mirrors):	
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
Rear overhang:	
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
Rear trailing unit distance:	
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
Tow coupling position (for towing heavy trailer):	
Full trailer	40% of wheelbase of towing vehicle

Summary of Legislation

Applicable references

- NZS 5467: 1993
- 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: Passenger Service Vehicles 1999**
- **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 9-3-1), and with other applicable requirements in this section.

2. In carrying out a 360-degree turn at the 25m 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.

Towing requirements (section 4.6)

3. 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.

4. Except as provided in requirement 5 below, a light motor vehicle may not tow more than one trailer.

5. Despite requirement 4, a tractor may tow two light trailers, provided that the tractor manufacturer’s ratings are not exceeded.

6. 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.

7. Except as specified in requirement 8, a light motor vehicle may tow a trailer, provided that, if the light motor vehicle is towing a heavy trailer, the gross mass of the trailer does not exceed 1.5 times the gross mass of the towing vehicle or the maximum towed mass specified by the manufacturer.

8. A light passenger service vehicle may not tow a trailer that has a gross vehicle mass of 2000kg or more.

9. A heavy passenger service vehicle may not tow a trailer that has a gross vehicle mass exceeding 3500kg.

10. An articulated bus may not tow a trailer.

Passenger Service Vehicle Rule

Towing and towbars

11. The towbar of a motor vehicle which entered service as a passenger service vehicle in New Zealand on or after 1 September 1999, and a towbar fitted to a vehicle after this date, must comply with the version of New Zealand Standard 5467: 1993 that was applicable at the time the towbar was fitted, and must be certified accordingly.

12. The chassis of a passenger service vehicle fitted with a towbar must have sufficient strength to withstand the forces imposed on it by the trailer.

Heavy Vehicle Rule

Towing connection requirements

13. 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.

Drawbeams and towbars (section 4.4)

14. A towbar fitted to a vehicle before 1 April 2006 must comply with:

a) NZS 5467: 1993, Code of Practice for Light Trailers, or

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

c) NZS 5446: 1987, Code of Practice for Heavy Motor Vehicle Towing Connections: Drawbar Trailers amended by Appendix A to Policy Statement 5 for towbars rated for a maximum towed mass of 2000kg or less.

15. A towbar fitted to a vehicle on or after 1 April 2006 for towing a light trailer must comply with NZS 5467: 1993, Code of Practice for Light Trailers.

Couplings (section 4.6)

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

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

18. A 50mm diameter tow ball fitted to a vehicle for towing a light trailer must comply with NZS 5232: 1993, Specification for Ball-and-Socket Type Trailer Couplings

19. A 1? inch diameter tow ball fitted to a vehicle for towing a light trailer must comply with the performance and marking requirements of NZS 5232: 1993 Specification for Ball-and-Socket Type Trailer Couplings, except that the ball size marking must be 1?".

20. A device fitted to the front of a vehicle to enable it to be recovered, together with its connection to the chassis, must be suitable for this purpose.

Passenger Service Vehicle Rule

Towing and tow-bars (section 6.13)

21. A passenger service vehicle must not tow heavy trailers.

22. The tow-bar of a motor vehicle which entered service as a passenger service vehicle in New Zealand on or after 1 September 1999, and a tow-bar fitted to a vehicle after this date, must comply with the version of New Zealand Standard 5467: 1993 that was applicable at the time the tow-bar was fitted, and must be certified accordingly.

23. The chassis of a passenger service vehicle fitted with a tow-bar must have sufficient strength to withstand the forces imposed on it by the trailer.

Page amended **1 October 2020** (see **amendment details**)

9-4 Fifth wheels and kingpins

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

Reasons for rejection

1. A fifth wheel designed to accept a 50mm kingpin has not been mounted in accordance with NZS 5450 or AS/NZS 4968.1 and AS/NZS 4968.2 and AS 2174 or, if fitted as original equipment on an imported powered vehicle, to UN/ECE Reg 55.

2. A fifth wheel designed to accept a 90mm kingpin has not been mounted in accordance with AS 1773, AS 1771 or, if fitted after 29 December 2007, AS/NZS 4968.1 and AS/NZS 4968.2..

3. A vehicle fitted with a fifth wheel designed to accept a 90mm kingpin does not comply with AS/NZS 2174-1994 or, if fitted after 29 December 2007, AS 2174-2006.

4. A 50mm kingpin has not been mounted in accordance with NZS 5451 or AS/NZS 4968.1 and AS/NZS 4968.2 and AS 2174 or, if fitted as original equipment on an imported vehicle, to UN/ECE Reg 55.

5. A 90mm kingpin has not been mounted in accordance with AS/NZS 2175 and AS/NZS 2174.

6. A vehicle fitted with a 90mm kingpin does not comply with AS/NZS 4968.1, AS/NZS 4968.3 and AS 2174 if fitted after 29 December 2007.

7. A skid plate fitted to a vehicle with a 90mm diameter kingpin does not comply with AS/NZS 4698.3

8. A kingpin other than a 50mm or 90mm diameter kingpin has been fitted unless it is a tow ball or socket as part of a dedicated combination and certified to NZS 5446.

9. A skid plate has not been fitted.

10. The towing connection components do not ensure a secure connection between towed and towing vehicles can be maintained under normal operating conditions.

11. A fifth wheel other than one designed to fit a 50mm or 90mm kingpin has been used unless it is a tow ball or socket as part of a dedicated combination and certified to NZS 5446.

12. A kingpin that has been used in service has been fitted without being subjected to and passing an NDT examination by a person qualified to carry out NDT in the process used.

13. If a fifth wheel that has been used in service and is fitted in a new installation, new bolts of the correct size and grade have not been used.

14. A lube plate has been fitted to a skid plate or a fifth wheel so that the coupling distance between the jaws of the fifth wheel and the kingpin no longer comply with NZS 5450.

15. A fifth wheel has not been installed in accordance with the fifth wheel manufacturer's specifications or the appropriate standard.

16. The fifth wheel or its mounting is affected by corrosion or weakening that is apparent by visual inspection so that it is unsafe.

17. The kingpin or its mounting is affected by corrosion or weakening that is apparent by visual inspection so that it is unsafe.

18. The kingpin has been repaired or modified.

19. The fifth wheel has been modified or repaired without the manufacturer's approval excluding bolt on/off components.

20. A vehicle fitted with a fifth wheel designed to accept a 90mm diameter kingpin does not have clearly displayed in a position readily visible from the position the release handle of the fifth wheel is operated the wording '90mm fifth wheel' in letters not less than 60mm high.

21. A vehicle fitted with a 90mm diameter kingpin does not have clearly displayed in a position readily visible at the lower right-hand side of the front end of the vehicle the wording '90mm kingpin' in letters not less than 100mm high.

22. The forward length exceeds 9.2m on a semi-trailer.

23. The maximum front overhang of a semi-trailer measured from the centre of the kingpin exceeds an arc of 2.04m.

24. The fifth wheel is located further rearward than:

a) the rearmost axle of the towing vehicle or rearmost axle of the leading trailer, or

b) if the towing vehicle is a rigid vehicle and has more than one axle in its rear set, it is more than 300mm rearward of the rear axis of the towing vehicle.

25. The weight on the trailer axle set of a stinger steer at any time exceeds 1.5 times the sum of the axle weights of the towing vehicle.

26. The weight of the front axle set or twin-steer set of the towing vehicle of a stinger steer at any time is less than 20% of the sum of the axle weights of the towing vehicle.

27. The fifth wheel position for a stinger steer is less than 700mm rearward of the rear axis of the towing vehicle.

28. The fifth wheel position for a stinger steer is more than a distance equal to 50% of the towing vehicle wheelbase rearward of the rear axis of the towing vehicle.

29. A converter dolly fitted with an oscillating fifth wheel is not fitted with a rigid drawbar.

30. A converter dolly fitted with a fixed fifth wheel is not fitted with a hinged drawbar.

31. A converter dolly with a hinged drawbar and a fixed fifth wheel does not have a tandem-axle set.

32. 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**).

Table 9-4-1. Dimension requirements for vehicles and vehicle combinations (abridged)

Dimension	Distance (metres except where indicated otherwise)
Overall length (excluding collapsible mirrors):	
Towing vehicle, full trailer, simple trailer, pole trailer (excludinvg load)	11.5
Any other combination of vehicles	20.0
Forward distance (excluding collapsible mirrors):	
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
Rear overhang:	
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
Rear trailing unit distance:	
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
Tow coupling position (for towing heavy trailer):	
Full trailer	40% of wheelbase of towing vehicle

Summary of Legislation

Applicable references

- AS/NZS 4968.1: 2003, Design Criteria and Selection Requirements for Fifth Wheel, Kingpin and Associated Equipment
- AS/NZS 4968.2: 2003, Testing and Installation of Fifth Wheel and Associated Equipment
- AS/NZS 4968.3: 2003, Kingpins and Associated Equipment
- AS 1773–1996: Articulated Vehicles – Fifth Wheel Assemblies
- AS 1771–1996: Installation of Fifth Wheel and Turntable Assemblies
- 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
- Welding in the transport industry (NZTA publication) - **Technical bulletin 10**
- NZS 5450: 1989: Specification for Coupling Devices for Articulated Vehicles – Fifth Wheel Assemblies
- NZS 5451: 1989: Specification for Coupling Devices for Articulated Vehicles – Fifth Wheel Kingpins
- AS/NZS 1554: Structural Steel Welding
- AS 3990: 1993: Mechanical Equipment – Steelwork
- AS 1110: 1984: ISO Metric Hexagon Precision Bolts and Screws
- AS 2174: 1994: Articulated Vehicles – Mechanical Coupling between Prime Movers and Semi-Trailers – Interchangeability Requirements
- AS 2174-2006: Articulated Vehicles – Mechanical coupling between Prime movers and semitrailers – interchangeability requirements
- UN/ECE Regulation 55: Uniform Provisions Concerning the Approval of Mechanical Coupling Components of Combinations of Vehicles E/ECE/342/Rev.1/Add.54/Rev.1/E/ECE/TRANS/505
- AS 2175-1995: Articulated Vehicles – Kingpins
- AS 4235-1994: Articulated Vehicles – Design Criteria for Fifth Wheel Skid Plates.

Applicable legislation

- **Land Transport Rule: Vehicle Standards Compliance 2002**
- **Land Transport Rule: Vehicle Dimensions and Mass 2016**
- **Land Transport Rule: Heavy Vehicles 2004**

1. Except as otherwise provided in this section and for vehicles operating under legislation prior to this rule, a vehicle must comply with the applicable requirements in Table 9-4-1, and with other applicable requirements in this section.

2. 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.

Land Transport Rule: Heavy Vehicles (section 4)

Vehicle and component requirements

3. 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.

Tractors and agricultural trailers

4. A towing connection of a tractor, other than a three-point linkage, must, on or after 1 October 2005 have clearly displayed on or adjacent to the coupling:

a) the maximum mass of any vehicle that may be towed behind the tractor by means of this towing connection, and

b) the maximum vertical force permitted on the towing connection.

5. A towing connection, other than a two-point or three-point linkage, that is fitted to an agricultural trailer to enable it to be towed must, on or after 1 October 2005, have displayed on or adjacent to the towing connection:

a) the gross vehicle mass of the trailer, and the mass of any vehicles that may be towed by the trailer, and

b) the maximum vertical force at the coupling when the trailer is loaded to its gross vehicle mass.

6. The masses and forces in requirements 4 and 5 above must be:

a) established by:

i. the manufacturer of the vehicle, or

ii. the manufacturer of the towing connection, or

iii. a chartered mechanical engineer, or

iv. a vehicle inspector or inspecting organisation appointed to carry out specialist inspection and certification activities.

b) displayed in kilograms, rounded to the nearest 100kg.

Fifth wheel assemblies

7. A vehicle that is constructed to tow a semi-trailer must:

a) be fitted with:

i. a 50mm diameter fifth wheel, or

ii. a 90mm diameter fifth wheel, and

b) comply with requirements 8 to 11 below as applicable.

8. A 50-mm-diameter fifth wheel that is fitted to a vehicle must comply with NZS 5450: 1989, Coupling Devices for Articulated Vehicles – Fifth Wheel Assemblies.

9. A 90-mm-diameter fifth wheel that is fitted to a vehicle must comply with:

a) AS 1773-1996: Articulated Vehicles – Fifth Wheel Assemblies, and

b) AS 1771-1996: Installation of Fifth Wheel and Turntable Assemblies, and

c) AS 2174-1994: Articulated Vehicles – Mechanical Coupling between Prime Movers and Semi-Trailers – Interchangeability Requirements.

10. A vehicle that is fitted with a 90-mm-diameter fifth wheel must have, clearly displayed in a position readily visible from the position from which the release handle of the fifth wheel is operated, '90-mm fifth wheel' in letters and figures not less than 100-mm high.

11. A rigid fifth wheel fitted to a vehicle must be installed and maintained in accordance with the fifth-wheel manufacturer's instructions.

Skid plates and kingpins (section 4.8)

12. A semi-trailer must:

a) be fitted with:

i. a 50mm diameter kingpin, or

ii. a 90mm diameter kingpin, and

b) be fitted with a skid plate, and

c) comply with requirements 13 to 16 below as applicable.

13. A 50-mm-diameter kingpin and associated skid plate fitted to a vehicle must comply with NZS 5451: 1989: Coupling Devices for Articulated Vehicles – Fifth Wheel Kingpins.

14. A 90-mm-diameter kingpin fitted to a vehicle must comply with:

a) AS 2175-1995: Articulated Vehicles – Kingpins, and

b) AS 2174-1994: Articulated Vehicles – Mechanical Coupling between Prime Movers and Semi-Trailers – Interchangeability Requirements.

15. A skid plate fitted to a vehicle in connection with a 90-mm-diameter kingpin must comply with AS 4235-1994: Articulated Vehicles – Design Criteria for Fifth Wheel Skid Plates.

16. A vehicle that is fitted with a 90mm diameter kingpin must have clearly displayed in a position readily visible at the lower right-hand side of the front end of the vehicle '90-mm kingpin' in letters and figures not less than 100mm high.

17. A kingpin fitted to a vehicle must not have any cracks that can be detected

a) during a non-destructive test, or

b) by means of visual inspection.

18. Results from a test in requirement 18 must be uniquely identifiable with the kingpin tested and must be retained by the vehicle's operator for the period that the kingpin is in service.

19. A test in requirement 18 must be carried out by a person qualified to carry out non-destructive testing.

Gazette **notice**

20. The weight on the trailer axle set of a stinger steer must not at any time exceed 1.5 times the sum of the axle weights of the towing vehicle.

21. The weight of the front axle set or twin-steer set of the towing vehicle of a stinger steer must at all times be at least 20% of the sum of the axle weights of the towing vehicle.

22. Fifth wheel position for stinger steer must be at least 700mm rearward of the rear axis of the towing vehicle and not more than a distance equal to 50% of the towing vehicle wheelbase.

Heavy Vehicle Rule definitions

23. A converter dolly must have either:

a) a rigid drawbar associated with an oscillating fifth wheel and a single-axle or a tandem-axle set, or

b) a tandem-axle set with a hinged drawbar with a fixed fifth wheel.

Page amended **6 March 2019** (see **amendment details**)

9-5 Vehicle recovery

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

Reasons for rejection

1. The towing connection of a heavy vehicle recovery vehicle fitted on or after 1 October 2005 does not comply with NZS 5446.

2. A rigid tow-pole that is used for vehicle recovery purposes does not comply with NZS 5446.

3. The lifting gear of the following class NB vehicles cannot complete a test lift of 1.25 times the manufacturer's lifting capacity:

a) a hook truck

b) a stinger lift truck

c) transporter.

4. The lifting gear of the following class NC vehicles has not been tested in accordance with AS 1418.5:

a) a hook truck

b) a stinger lift truck

c) transporter.

5. A component used in the construction of the lifting gear fitted to a recovery vehicle is not suitable for its intended use.

6. The lifting gear fitted to a recovery vehicle on or after 1 October 2005 has not been constructed in accordance with any of the following applicable standards:

a) AS 1418.1

b) AS 1418.5

c) AS/NZS 1554

d) AS 3990.

7. The manufacturer's stated lifting capacity of a hook truck or stinger lift truck is not clearly displayed, in kilograms, rounded to the nearest 50kg, at the rear of the vehicle in letters and figures not less than 30mm high.

8. A component used in the construction of lifting gear fitted to a vehicle recovery service vehicle is not suitable for its intended use.

9.Towing connection components fitted to a vehicle do not ensure that a secure connection is maintained between the towing and towed vehicles under all conditions of loading and operation for which the vehicle is constructed.

10. The towing 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 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 13-7).

Table 9-5-1. Dimension requirements for vehicles and vehicle combinations (abridged)

Dimension	Distance (metres except where indicated otherwise)
Overall length (excluding collapsible mirrors):	
Towing vehicle, full trailer, simple trailer, pole trailer (excludinvg load)	11.5
Any other combination of vehicles	20.0
Forward distance (excluding collapsible mirrors):	
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
Rear overhang:	
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
Rear trailing unit distance:	
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
Tow coupling position (for towing heavy trailer):	
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 **Land Transport Rule: Vehicle Dimensions and Mass 2002**], a vehicle must comply with the applicable requirements in Table 4.1 [of **Land Transport Rule: Vehicle Dimensions and Mass 2002** (abridged in Table 9-5-1), and with other applicable requirements in this section.

2. In carrying out a 360-degree turn at the 25m 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.

Heavy Vehicle Rule

Vehicle recovery service vehicles

1. Lifting gear fitted to a vehicle recovery service vehicle on or after 1 October 2005 must be constructed in accordance with:

a) *Australian Standard 1418.1-1994: Cranes (including hoists and winches) – General requirements*; and

b) *Australian Standard 1418.5-1995: Cranes (including hoists and winches) – Mobile and vehicle-loading cranes*; and

c) *Australian/New Zealand Standard: 1554, Structural steel welding Parts 1 to 6*; and

d) *Australian Standard 3990-1993: Mechanical equipment – Steelwork*.

2. A towing connection fitted to the rear of a vehicle recovery service vehicle for recovery purposes on or after 1 October 2005 must be designed and constructed in accordance with *NZS 5446*.

3. A rigid tow-pole that is used for vehicle recovery purposes must be designed and constructed in accordance with NZS 5446.

4. Lifting gear of a class NB hook truck, stinger lift truck or transporter must be able to satisfactorily complete a test lift of 1.25 times the lifting capacity stated by the manufacturer.

5. Lifting gear of a class NC hook truck, stinger lift truck or transporter must be tested in accordance with *Australian Standard 1418.5-1995: Cranes (including hoists and winches) — Mobile and vehicle-loading cranes*.

6. The manufacturer's stated lifting capacity of a hook truck or stinger lift truck must, on or after 1 October 2005, be clearly displayed, in kilograms, at the rear of the vehicle in letters and figures not less than 30mm high.

7. The manufacturer's stated lifting capacity in *requirement6* must be rounded to the nearest 50kg.

8. A component used in the construction of lifting gear fitted to a vehicle recovery service vehicle must be suitable for its intended use.

Towing connection requirements

9. 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.

Couplings (section 4.6)

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

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

12. Unless requirement 13 or 14 applies, a hook, pin or ball-and-socket type coupling for towing a vehicle must comply with NZS 5446: 1987.

13. A 50-mm-diameter tow ball fitted to a vehicle for towing a light trailer must comply with NZS 5232: 1993, Specification for Ball-and-Socket Type Trailer Couplings

14. A 1?-inch-diameter tow ball fitted to a vehicle for towing a light trailer must comply with the performance and marking requirements of NZS 5232: 1993 Specification for Ball-and-Socket Type Trailer Couplings, except that the ball size marking must be 1?”.

15 . A device fitted to the front of a vehicle to enable it to be recovered, together with its connection to the chassis, must be suitable for this purpose.