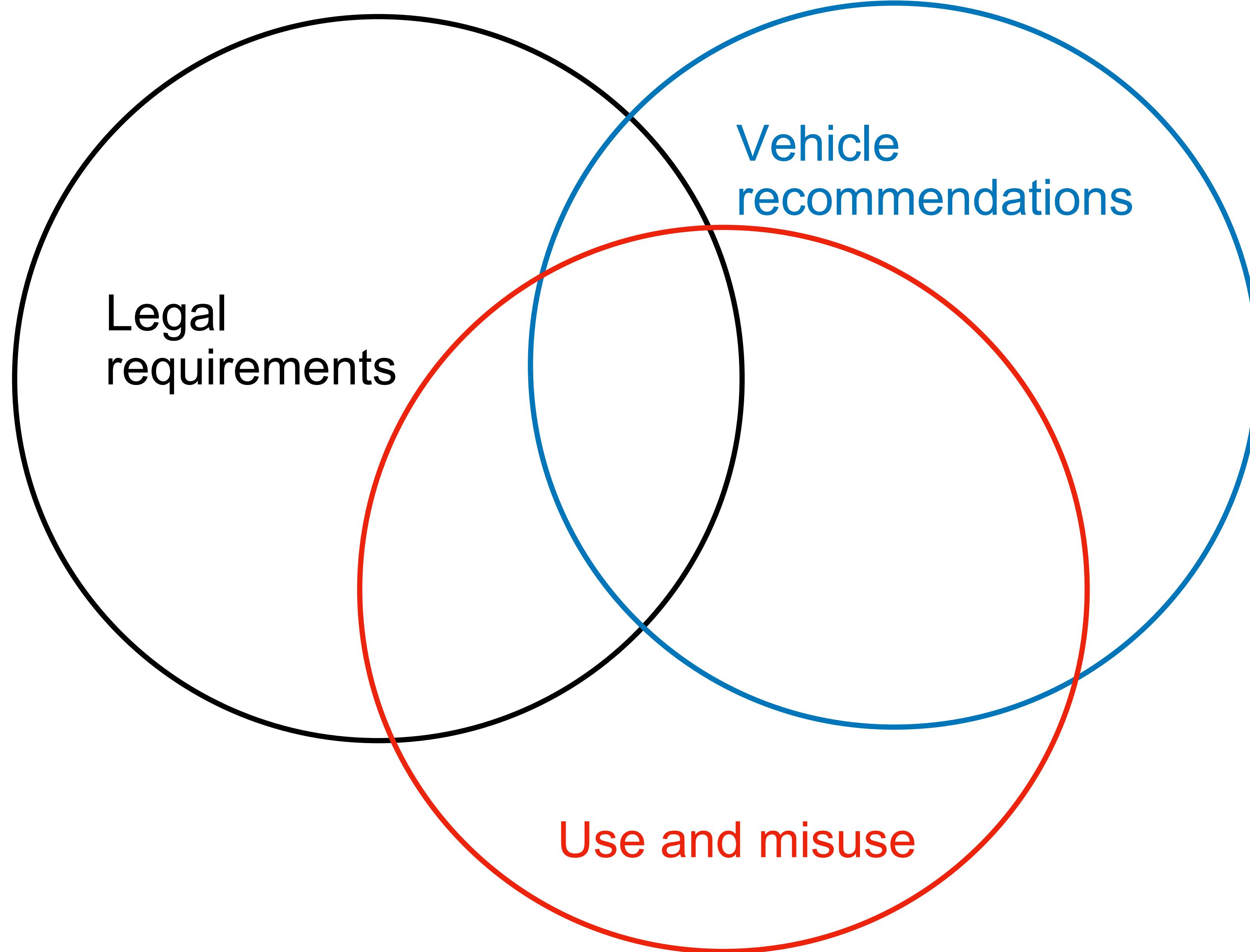


Trailer woes

Background



Legal
requirements

Vehicle
recommendations

Use and misuse

Legal background

There are **26 Acts and 268 sets of regulations and rules** that regulate the transport sector. Covering everything from licensing to lighting.

- Acts - enable other instruments
- Regulations — set specific limits, like seat belt restraints approved by order in council
- Rules — more flexible, recommended by Waka Kotahi, approved by the Minister.

The key legal constraints on trailers are rules

Typical Rules

- [Land Transport Rule 32005: Vehicle Lighting 2004](#)
- [Land Transport Rule 32014: Light-vehicle Brakes 2002](#)
- [Land Transport Rule 41001: Vehicle Dimensions and Mass 2002](#)
- [Land Transport Rule 45001: Dangerous Goods 2005](#)
- [Land Transport \(Road User\) Rule 2004 \(No 61001\)](#)

Trailer classes

| | |
|--------------------------------|---|
| <u>TA (very light trailer)</u> | A single-axled trailer that has a gross vehicle mass not exceeding 0.75 tonnes. |
| <u>TB (light trailer)</u> | A trailer (other than a class TA trailer) that has a gross vehicle mass not exceeding 3.5 tonnes. |
| <u>TC (medium trailer)</u> | A trailer that has a gross vehicle mass exceeding 3.5 tonnes but not exceeding 10 tonnes. |
| <u>TD (heavy trailer)</u> | A trailer that has a gross vehicle mass exceeding 10 tonnes. |

So all the trailers in the compound are class TB

Key rules applying to yacht trailers

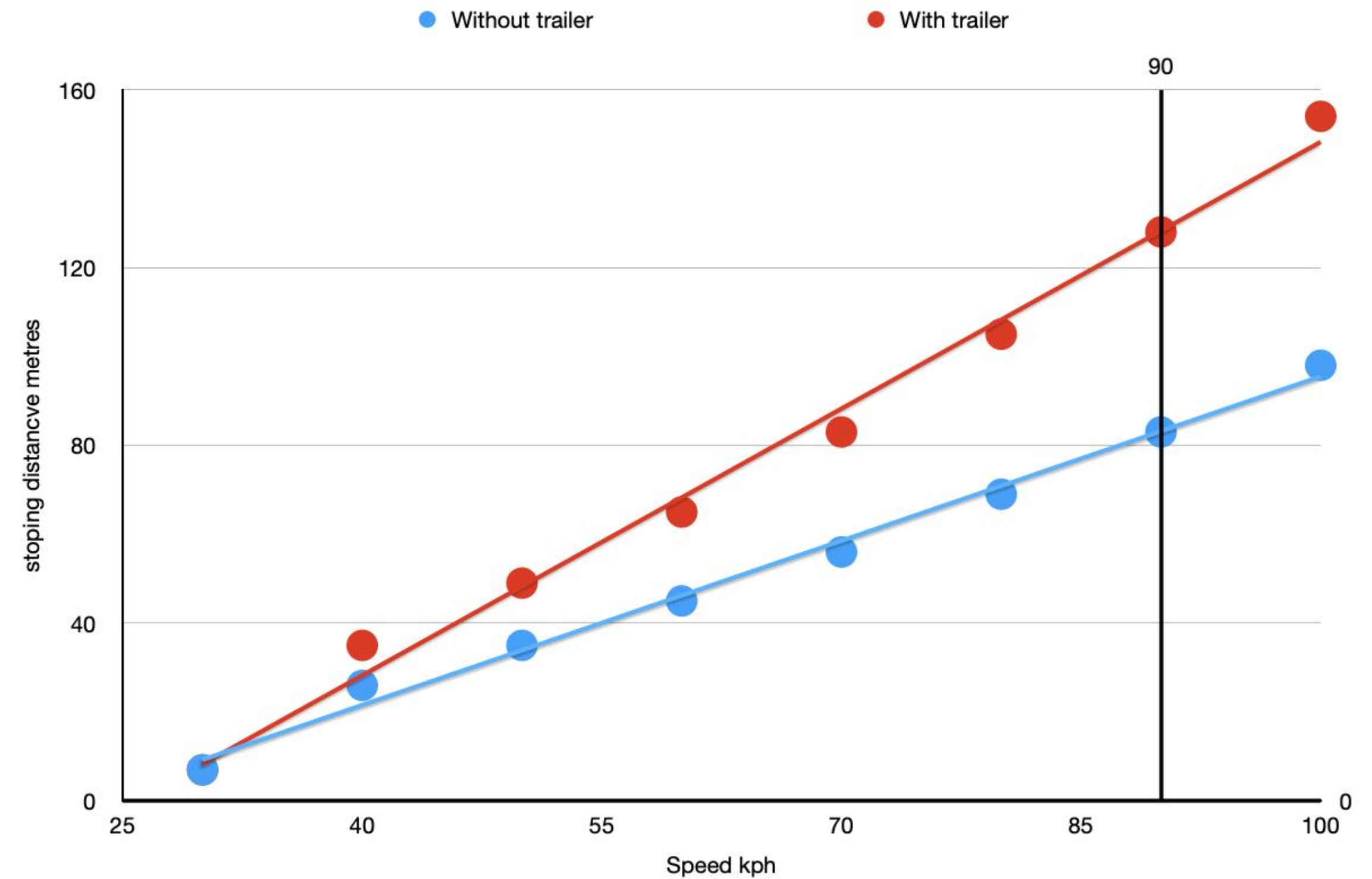
- Therefore all the yachts in the compound will be classified as Light Class TB trailers.
- Key rules cover:
 - Vehicle lighting
 - Tyres and wheels
 - Brakes (not required if GVM is less than 2000 kg. **However, brakes are strongly recommended to comply with vehicle specifications and stopping rule.**)
 - Speed limits (Land Transport (Road User) Rule 2004)

NZTA Light Trailer requirements

1. Must be licensed (rego)
2. Must have a WoF. To meet the WoF standard your trailer must be in good condition (no rust around safety areas) and it must have the following equipment in good working order:
 1. **A safe and strong coupling and a safety chain or cable.**
 2. **A draw bar with no damage or corrosion.**
 3. If the trailer or its load is more than 2 metres wide, it must have 2 white lights at the front to show how wide it is.
 4. Safe tyres – the tread depth must be at least 1.5 millimetres around the tyre.
 5. Mudguards.
 6. One or 2 red tail lights to show the width.
 7. 2 red reflectors at the back (one on each side).
 8. 2 red stop lights at the back, if the driver's signals can't be seen.
 9. Direction indicators at the back.
 10. A number plate light at the back.
 11. A current licence label (rego) needs to be positioned close to the number plate.
3. **THE TOWING VEHICLE MUST BE CAPABLE OF STOPPING THE TRAILER WITHIN SEVEN METRES FROM 30 KPH**
4. **THE SPEED LIMIT FOR VEHICLES TOWING A LIGHT TRAILER IS 90 KPH**

Standard stopping distances in dry conditions

| Speed (km/h) | Reaction distance | Braking distance | Total stopping distance | With trailer |
|--------------|-------------------|------------------|-------------------------|--------------|
| 40 | 17m | 9m | 26m | 35m |
| 50 | 21m | 14m | 35m | 49m |
| 60 | 25m | 20m | 45m | 65m |
| 70 | 29m | 27m | 56m | 83m |
| 80 | 33m | 36m | 69m | 105m |
| 90 | 38m | 45m | 83m | 128m |
| 100 | 42m | 56m | 98m | 154m |
| 110 | 46m | 67m | 113m | 180m |



STOPPING DISTANCE INCREASES IN WET CONDITIONS

Service brakes, parking brakes, and safety chains on light trailers

- Service brakes are **not** required for Gross Laden Weight 2,000 kg or less, but if fitted, must act on each wheel of at least one axle. **However, brakes are strongly recommended and specified for most vehicles towing trailers over 750 kg.** (See vehicle manufacturer's recommendations in the next slide)
- Parking brake not required, but it must work if fitted.
- Safety Chain must be fitted, and be of sufficient strength secure trailer under all conditions. That includes the shackle.
- Service brakes on the trailer and the towing vehicle must be capable of stopping both vehicles within seven metres from speed of 30 km/h.



Vehicle
recommendations

Vehicle design

Insurance and guarantee implications

Vehicle Towing Weights

<https://www.aa.co.nz/cars/owners/towing/towing-weights/>

| Model | Unbraked | Braked |
|--------------------------------|------------------|--------|
| | Data from the AA | |
| BMW X1 2.0 D | 750 | 2000 |
| BMW X6 all models | 750 | 2700 |
| Honda HRV man | 500 | 800 |
| Honda Jazz CVT | 450 | 450 |
| Holden Captiva D | 750 | 2000 |
| Holden Colorado | 750 | 2500 |
| Holden Cruze all models | 750 | 1250 |
| Suzuki Vitara | 650 | 1500 |
| Suzuki Jimny | 500 | 950 |
| Toyota Corolla | 450 | 1000 |
| Toyota Hilux | 700 | 2250 |
| Toyota RAV | 750 | 1500 |
| Toyota RAV diesel | 750 | 2000 |
| VW Passat TDi | 750 | 1600 |
| VW Tiguan R Line | 750 | 2500 |
| VW Tiguan 2WD | 750 | 1800 |

Trailer yacht displacement and trailer weights


<https://www.nztya.nz/trailer-yacht-design>

| Yacht | Length | Displacement | Weight on the Trailer | Weight of trailer |
|----------------------------|--------|--------------|-----------------------|-------------------|
| Single Axle trailer | | | | |
| Aquarius 22 | 6.6 | 999 | 1180 | 181 |
| Catalina 6 | 6.0 | 750 | 953 | 203 |
| Hartley 16 | 4.8 | 408 | 506 | 98 |
| Farr 6.0 | 6.8 | 907 | 1360 | 453 |
| Noelex 22 | 6.6 | 727 | 907 | 180 |
| Average | | | 981 | 223 |
| Twin axle trailer | | | | |
| Noelex 25 | 7.73 | 1180 | 1780 | 600 |
| Farr 7.5 | 7.57 | 1150 | 1700 | 550 |
| McGregor | 7.9 | 1400 | ? | |
| Average | | | 1740 | 575 |

Tongue Load or drawbar download

- Recommended to be between 5 % 10% of Trailer laden weight.
- Too much or too little can lead to trailer sway
- Too much can reduce towing vehicle traction

S



OUTLANDER

| MITSUBISHI MOTORS | MAX.TOWBAR CAPACITY | MAX.TOWBALL DOWNLOAD |
|--------------------------|----------------------------|-----------------------------|
| PETROL | 1600kg | 160kg |
| DIESEL | 2000kg | 200kg |

TONGUE PART No MZ350574
THIS TONGUE IS TO BE USED ONLY WITH
TOWBAR PART No MZ350573
FOR TRAILER TOWING ONLY

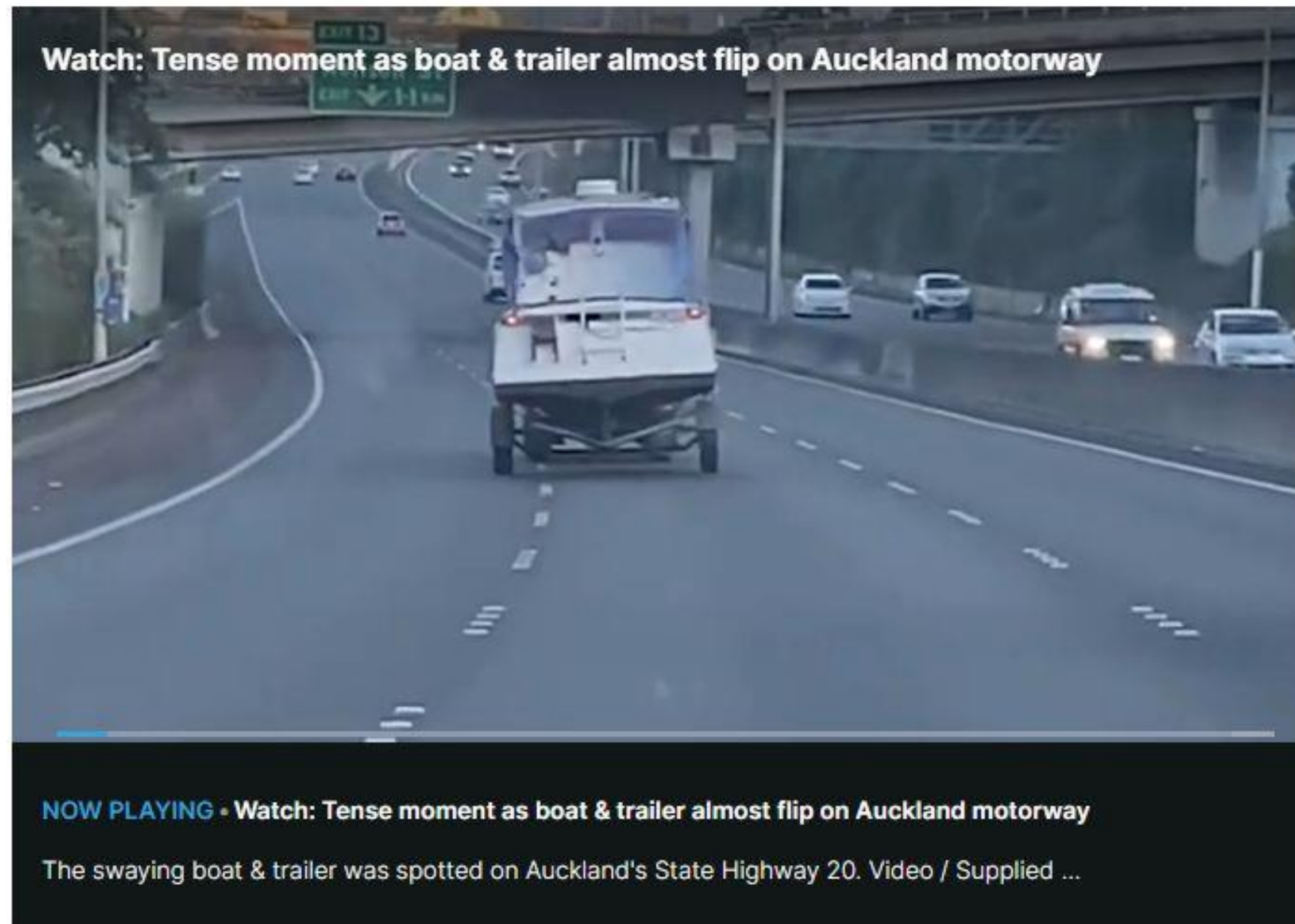
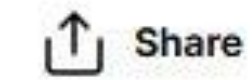
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Video captures boat swaying wildly on trailer on Auckland motorway



NZ Herald

5 Dec, 2022 12:28 PM Quick Read



<https://www.nzherald.co.nz/nz/video-captures-boat-swaying-wildly-on-trailer-on-auckland-motorway/3GGKBL6SGND7NOSRCB7PEBNBJ4/>

Camper Swerves into traffic, crashes on New Jersey's garden state



Maintenance

- Rust — structural areas
- Bearings
- Tyres
- Brake calipers
- Master cylinder

Further information

<https://www.nztya.nz/trailer-yacht-design>

<https://www.aa.co.nz/cars/owners/towing/towing-weights/>

<https://www.nzta.govt.nz/roadcode/general-road-code/about-your-vehicle/light-trailer-requirements/>

<https://www.nzta.govt.nz/assets/resources/glovebox-guide-safe-loading-towing/docs/guide-safe-loading-towing.pdf>