

# Vehicle Frontal Protection Systems

Is your bull bar legal?



# Bull bars

Bull bars are structures sometimes fitted to the front of a vehicle to reduce damage to the vehicle in the event of a front-end collision or an animal strike.

## Rules that apply to bull bars in NSW

If you want to fit a bull bar for either a new or used car registered in NSW, it must comply with the 'Technical Specification: Requirements for vehicle frontal protections systems fitted to light vehicles'.

This brochure contains summary information only. To access the full Technical Specification, visit [roadsafety.transport.nsw.gov.au/stayingsafe/vehiclesafety/bull-bars.html](https://roadsafety.transport.nsw.gov.au/stayingsafe/vehiclesafety/bull-bars.html)

# 1. End shape

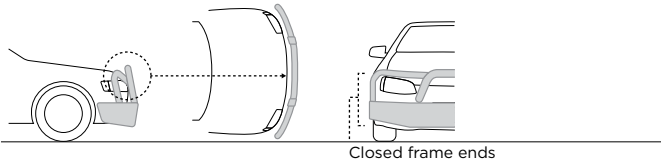
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The bull bar must generally conform to the shape of the front of the vehicle and have no excessive gaps between the body and the bull bar.

## ✓ End shape

### Acceptable

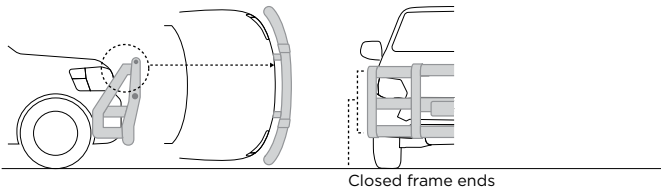
Frame generally follows vehicle shape;  
bumper bar wrapped around side of vehicle



## ✓ End shape

### Acceptable

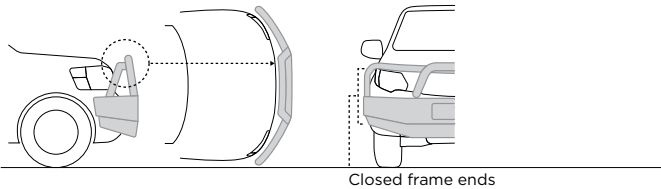
Frame generally follows vehicle shape;  
bumper bar wrapped around side of vehicle



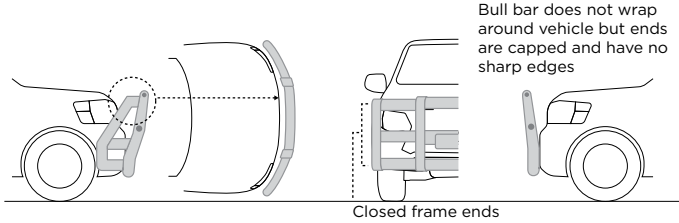
## ✓ End shape

### Acceptable

Frame generally follows vehicle shape;  
bumper bar wrapped around side of vehicle

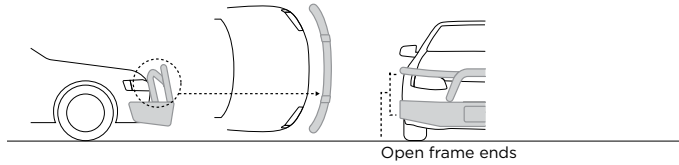


✓ End shape  
**Acceptable**



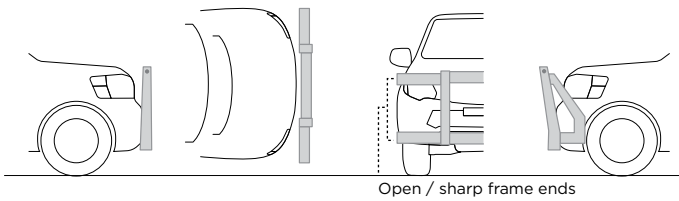
✗ End shape  
**Unacceptable**

Space between car and bumper bar excessive



✗ End shape  
**Unacceptable**

Frame does not generally follow vehicle shape

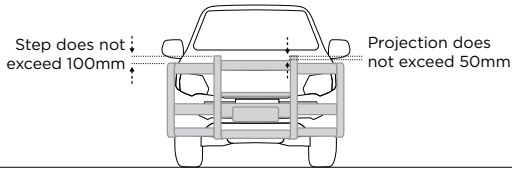


## 2. Profile

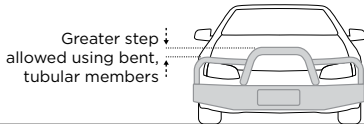
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If your bull bar is rectangular, the steps between components must not be more than 100mm, and a member must not project more than 50mm beyond the point of intersection with another member.

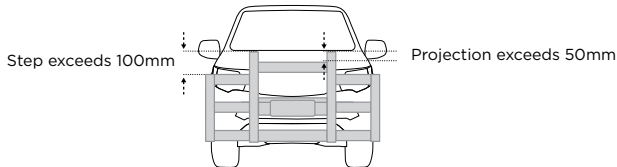
✓ **Frame members**  
**Acceptable**



✓ **Frame members**  
**Acceptable**



✗ **Frame members**  
**Unacceptable**



### 3. Corners and edges

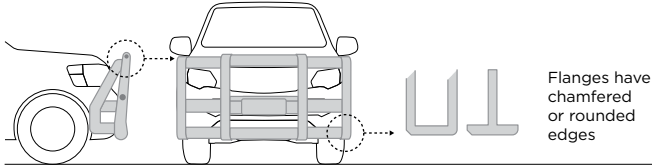
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The bull bar must have no sharp edges.

#### ✓ Corners and Edges

##### **Acceptable**

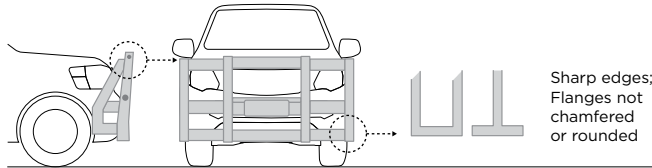
Rounded frame ends; rounded corners and edges



#### ✗ Corners and Edges

##### **Unacceptable**

Square or angled frame members; sharp corners or edges



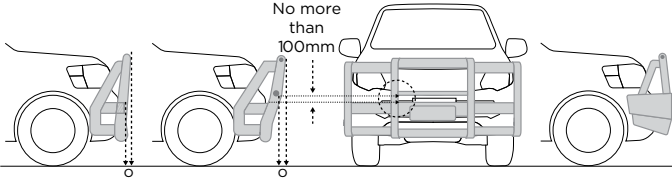
# 4. Offset

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The bull bar must not lean too far forward.

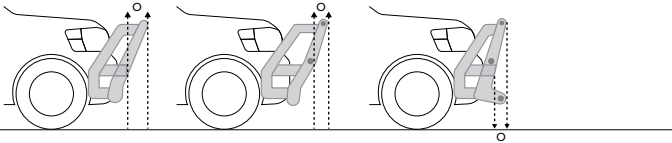
✓ **Offset**  
**Acceptable**

Offset 'O' does not exceed 75mm (approx. 9°)



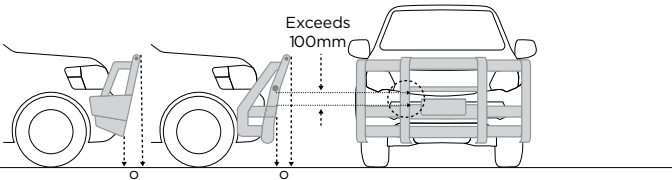
✗ **Offset**  
**Unacceptable**

Offset 'O' exceeds 75mm (greater than 9°)



✗ **Offset**  
**Unacceptable**

Offset 'O' exceeds 75mm (greater than 9°)



## 5. Projections

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- Brackets and other components must be fitted behind the front face of the bull bar.
- Brackets, items attached to the brackets, and other components that protrude above the top of the bull bar must have no exposed sharp edges.
- Any item connected to a bracket (e.g. a driving light or fairleads required for the operation of a winch) can only protrude forward of the bull bar by the minimum amount necessary and must be blunt or protected to minimise risk of injury to vulnerable road users.

**It is common to fit a**

**ladder rack to a bull bar.**

**For guidance on the legal**

**way to do this, see**

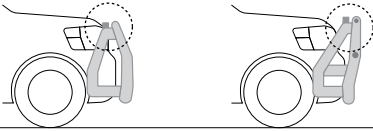
**[www.rms.nsw.gov.au/documents/roads/safety-rules/  
standards/vsi-31-ladder-racks-light-vehicles.pdf](http://www.rms.nsw.gov.au/documents/roads/safety-rules/standards/vsi-31-ladder-racks-light-vehicles.pdf)**



✓ Brackets

**Acceptable**

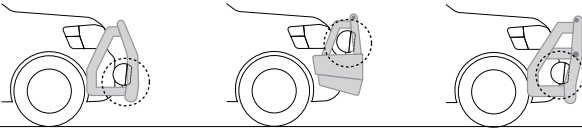
Unexposed bracket/s



✓ Brackets

**Acceptable**

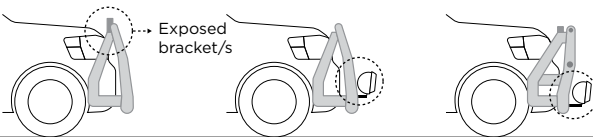
Brackets that do not project beyond front face of VFPS



✗ Brackets

**Unacceptable**

Brackets projecting forward of VFPS



## 6. Vehicle width

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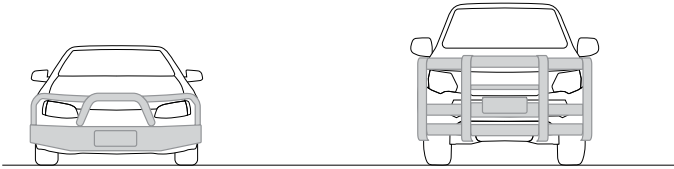
The overall width of the vehicle including the bull bar must not exceed 2.5 metres.

The bull bar must not extend beyond the mirrors.

### ✓ Vehicle width

#### **Acceptable**

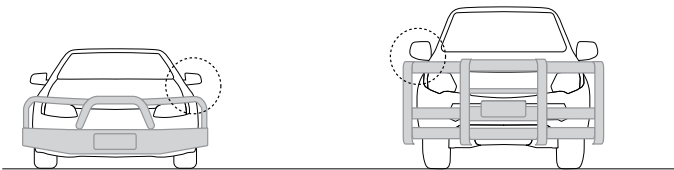
Within overall width of vehicle including mirrors



### ✗ Vehicle width

#### **Unacceptable**

Exceeds overall width of vehicle including mirrors



## 7. Vehicle lights

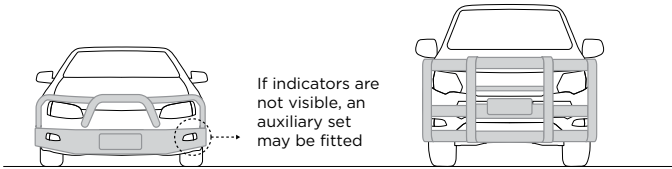
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If the bull bar obscures the front lights or indicators, the bull bar must incorporate additional lights or indicators.

### ✓ Lights

#### Acceptable

All of the vehicle's mandatory front lights are visible



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### ✗ Lights

#### Unacceptable

Any of the vehicle's mandatory front lights, including indicators, are obscured (no auxiliary added)



## 8. Number-plates

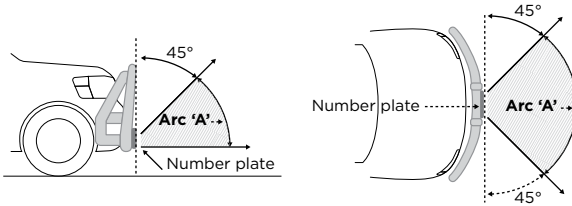
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The bull bar must either not obscure the number-plate or must incorporate a mounting point for the number-plate which includes a number-plate light.

### ✓ Number-plate

#### Acceptable

Number-plate fully visible from 20 metres within shaded arc 'A'

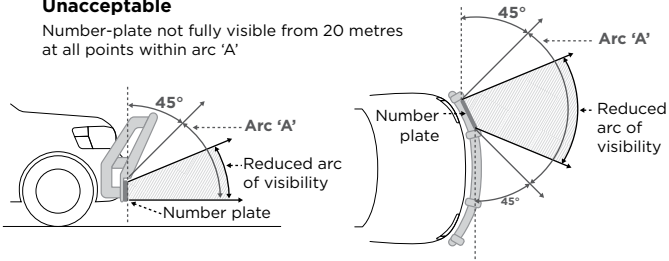


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### ✗ Number-plate

#### Unacceptable

Number-plate not fully visible from 20 metres at all points within arc 'A'



## 9. Driver's view of the road

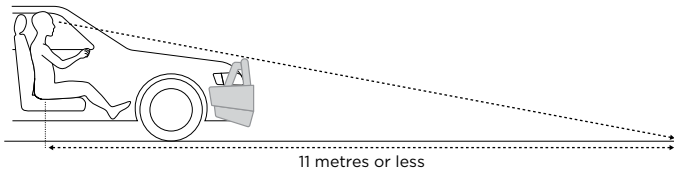
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If the bull bar extends above the line of the bonnet, the driver must have an unobstructed view of the surface of the road 11 metres in front of them and beyond when sitting in the normal driving position.

✓ **Forward view of the road**

**Acceptable**

Drivers view unobstructed

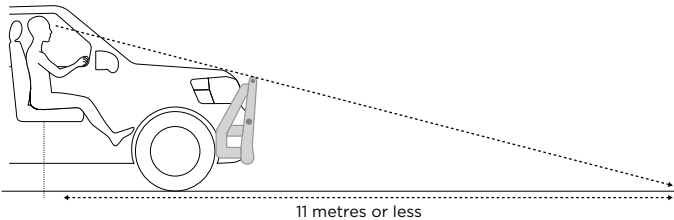


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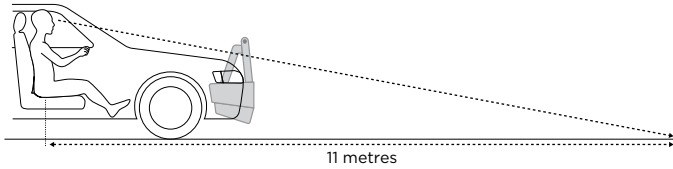
✓ **Forward view of the road**

**Acceptable**

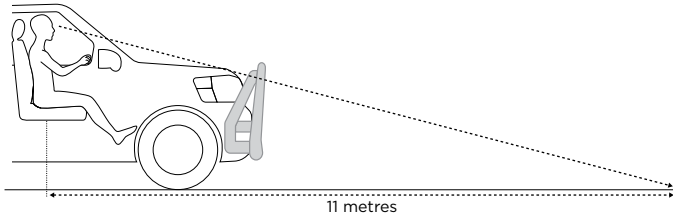
Drivers view unobstructed



- ✘ Forward view of the road  
**Unacceptable**  
Drivers view obstructed



- ✘ Forward view of the road  
**Unacceptable**  
Drivers view obstructed



## 10. Ground clearance

There must be at least 100mm ground clearance under the vehicle once the bull bar has been fitted.

- ✘ Ground clearance  
**Unacceptable**  
Less than 100mm ground clearance



## Checklist for Vehicle Frontal Protection System (VFPS)

Requirement	(Yes/No /NA)
<b>General profile and sharp edges</b>	
Is the topmost member no more than 75mm or 9 degrees in front of the main VFPS supporting member or a horizontal member whose base is not more than 100mm above the supporting member?	
Are at the top and bottom ends of all vertical members curved rearwards?	
Are all forward facing members free of sharp edges?	
Is the bumper or main horizontal support member capped or wrap around front of vehicle?	
Is the bull bar free of open frames?	
<b>Projections</b>	
If the VFPS is made from non-circular section member, is every vertical step along the top of the VFPS less than 100mm?	
Do all members project less than 50mm past intersections with other members?	
Are brackets or other rigid components fitted behind the front face and below the top of the VFPS?	
Does any bracket, or device attached to a bracket or directly to the bull bar, that protrudes above the top of the bull bar have exposed sharp edges?	
Does any item attached to a bracket protrude excessively beyond the front face, or have an exposed sharp edge?	
<b>Increased vehicle width</b>	
If the vehicle has mirrors fitted, as standard, on both sides of the vehicle, is the width of the VFPS less than the width of the vehicle plus 300mm?	
Is the width of the VFPS and any attachment less than 2.5m?	
<b>Obscured lights</b>	
Are additional lights fitted to the VFPS (excluding minor obscuration due to protective mesh)?	
<b>Number-plate</b>	
Is the front number-plate visible at all locations within a 45 degree arc?	
Is the number-plate and any mounting hardware free of sharp edges?	
<b>Forward view of the road</b>	
Does a tall driver in the rearmost driving position have an unobstructed view of the road at all points beyond 11m in front of them?	
<b>Ground clearance</b>	
Are all points on the VFPS greater than 100mm above the ground?	
Does the vehicle satisfy every requirement and tolerance contained within the Technical Specification (all above answers must be Yes or NA)	

This brochure contains summary information only. To access the full Technical Specification, visit [roadsafety.transport.nsw.gov.au/stayingsafe/vehiclesafety/bull-bars.html](https://roadsafety.transport.nsw.gov.au/stayingsafe/vehiclesafety/bull-bars.html)

**September 2019**

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The information in this brochure is intended as a guide only and is subject to change at any time without notice. It does not replace the relevant legislation.

