Victoria's Network for 50.5t Quad-Semi Trailers

What is the difference between current Semi Trailers and Quad-Semi Trailers?

Quad-Semi Trailers are up to 20 metres long and have a Gross Combination Mass (GCM) of 50.5 tonne. In Victoria, most Semi Trailers are up to 19 metres long and have a GCM of 46 tonne. For palletised loads, the added length and mass provided by a Quad-Semi can result in up to 4 more pallets being able to be loaded.

What roads can be accessed by Quad-Semi Trailers and at what mass?

The Victorian HPFV network approved for Quad-Quad B-Doubles up to 77.5 tonne, is the same network that can be accessed by Quad-Semis up to 50.5 tonne. A map and details of Victoria's HPFV network are available on VicRoads website via the following link: http://vicroadsmaps.maps.arcgis.com/apps/webappviewer/index.html?id=f06f732ab97a4737a9fd56b6b1aea24f

The following rules explain the approved mass for Quad-Semis operating on the HPFV network for Quad-Quad B-Doubles:

- Green roads = approved for Quad-Semi at 50.5 tonne
- Red roads/bridges = approved for Quad-Semi at 46 tonne[1]
- Orange roads/bridges = approved for Quad-Semi above 46 tonne and up to a maximum of 50.5 tonne[2]
- Purple = currently under assessment

What are the specific mass limits and axle spacings?

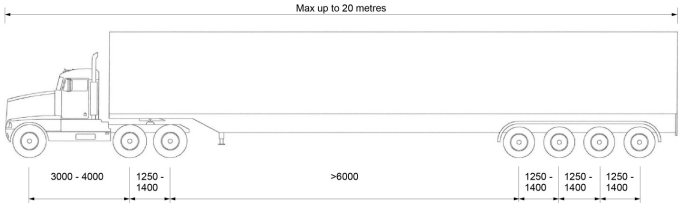
The mass limits for Quad-Semis operating on the HPFV network are as follows:

- Steer Axle – 6.0 tonnes
- Steer Axle – 6.5 tonnes[3]
- Drive Tandem Axle Group – 17.0 tonnes
- Quad-Axle Group – 27.0 tonnes
- Overall – 50.5 tonnes

In relation to axle spacings, the combination must meet the following minimum and maximum axle spacings to safely cross all the structures on the network (the figures are in millimetres):[4]

Quad-Semi > 46 tonne (not to scale)

Quad-Semi up to 50.5 tonne and 20 metres



What are the specific dimension limits?

The dimension limits for Quad-Semi operating on the HPFV network are as follows:

- Maximum Length – 20 metres
- Maximum Height – 4.3 metres
- Maximum Width – 2.5 metres

What are the Quad-Semi operating conditions on the HPFV Mass Network?

The following conditions apply to Quad-Semis accessing the HPFV network:

- Satisfy Performance Based Standards;
- Quad-Semis are fitted with a GPS device accredited under the Intelligent Access Program (IAP);
- Fitment of a certified On Board Mass (OBM) system that can be integrated with IAP[5];
- The Quad-Semi (prime mover and trailer) is accredited under the Mass Management module of the National Heavy Vehicle Accreditation Scheme;
- The Quad-Semi has an anti-lock braking system fitted on all axles;
- Certified Road Friendly Suspension (RFS) is fitted to the Quad-Semi.

How do I obtain approval to operate a Quad-Semi on this network?

A Class 2 heavy vehicle permit must be obtained to operate a Quad-Semi on the HPFV network. Applications for a Class 2 heavy vehicle permit can be submitted via the National Heavy Vehicle Regulator (NHVR) website.

For access to Victoria's HPFV Mass network for Quad-Quad B-Doubles please include reference to this network within the 'Route/Area Description' Section of the NHVR permit application form.

[1] Trailer Quad-Axle group mass limit is 22.5 tonne.

[2] Trailer Quad-Axle group mass limit equals Quad-Quad B-Double mass limit as per HPFV network map minus 23.5 tonne, then divided by 2.

[3] Provided the complying steer axle requirements as set out in the *Heavy Vehicle (Mass, Dimension and Loading) National Regulation* are met by the prime mover.

[4] Combinations that do not comply with the minimum and maximum axle spacing's will require a bridge assessment on the nominated route.

[5] While fitment of an approved OBM system has been specified as an access condition, it is recognised that such systems are not currently available. Accordingly, this requirement is waived until such time as when advice is provided by VicRoads that an OBM system must be fitted to the combination in accordance with the specifications and standards set by Transport Certification Australia.