



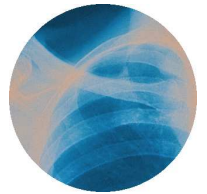
RIGGING LOAD MANUAL

STRUCTURAL AND CIVIL ENGINEERS

PORIRUA SPORTS AND EVENTS  
CENTRE

20526

DECEMBER 2008





## PORIRUA SPORTS AND EVENTS CENTRE

### RIGGING LOAD MANUAL

#### Summary

The portal frames supporting roof structure to both the single court Warm Up gym and larger 3 Court Main Gym have been designed to support rigging loads of up to 2.5T and 5.0T each respectively.

Television Platform in the Main Gym is designed for a 3.0kPa live load and two pieces of equipment of up to 100kg each at outer edge of the platform.

#### Limitations on total Roof loads

Each Portal frame may support distributed and/or concentrated loads as described in Figures 1 to 3 for each gym. At the North end of the Main gym, where staging is expected to occur, intermediate beams have been provided spanning between the portal frames to allow smaller concentrated loads to occur.

Any combination of smaller direct/indirect concentrated and/or distributed loads may occur provided that the sum of loads to each of the Warm Up gym and larger 3 Court Main Gym portals does not exceed 2.5T and 5.0T respectively.

All loads are designed to be vertical loads only with no allowance made for bridled load to portal frames or intermediate beams. This means that loads are designed to be applied at 90 degrees to horizontal only and alternative arrangements should not be utilised without prior approval from the Engineer. Structural members that are not discussed in this manual have no specific allowance for application of load to them and shall not be used for rigging. Refer Figure 4 for rigging point load limitations.

#### Television Platform load allowance

The Television platform at the Southern end of the Main Gym is designed to support a uniform load up to 3.0kPa or 30kg/m<sup>2</sup> and two pieces of equipment up to 100kg each at the outer edge of the platform e.g. Cameras.

#### Additional provision for staging loads to floor slabs

Floor Slabs throughout both gyms are 125mm thick cast in place and can support concentrated loads during construction or in the absence of the timber sports floor, in the order of:

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Level 1 PSA House

11 Aurora Terrace

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Hamilton

Christchurch

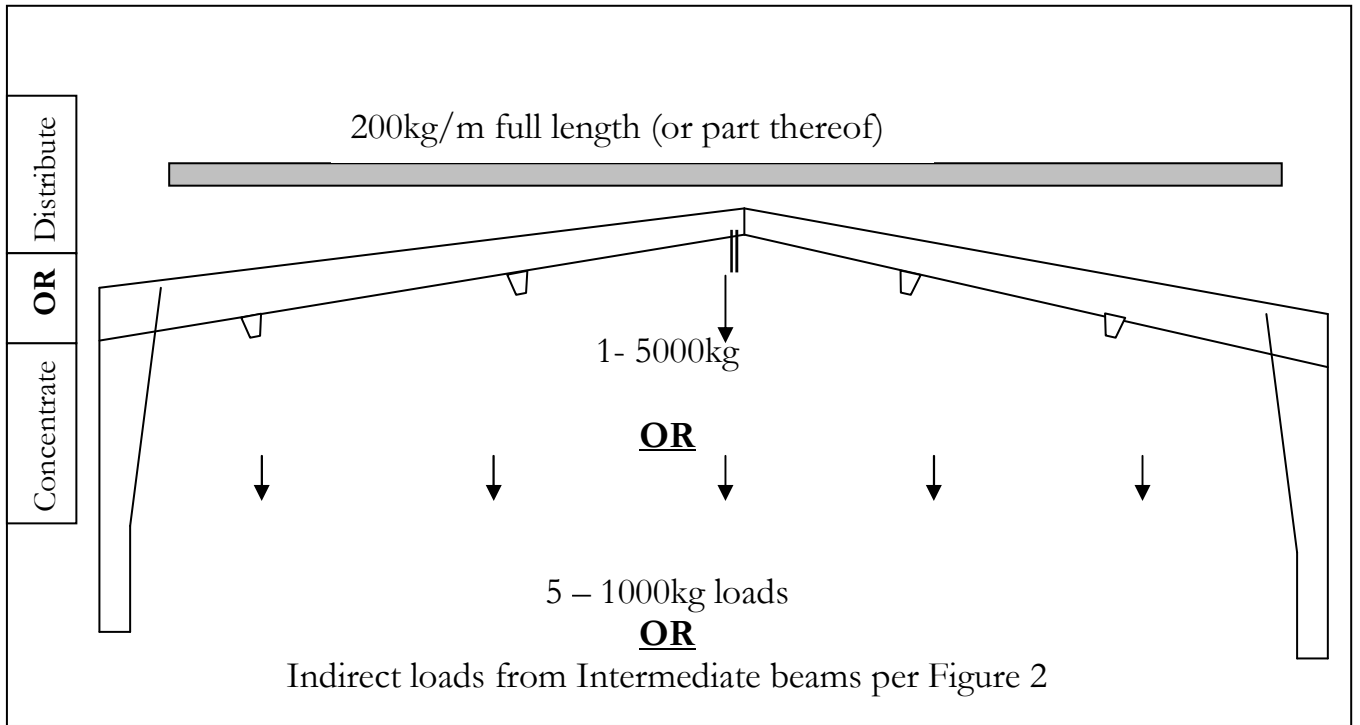
Queenstown

San Francisco

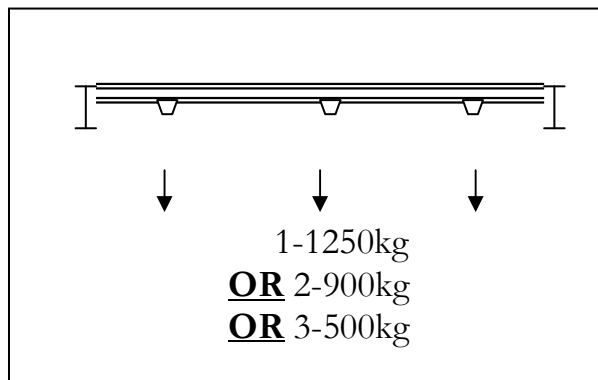


- Light commercial vehicles (cars, utility vehicles and small vans with pneumatic tires) < 2.5 tonnes.
- Occasional use of Large scissor lift or small forklifts with lifting capacity < 1.5 tonnes.
- Minimal construction traffic limited to lightweight vehicles and hoists in line with the weight limits outlined above.

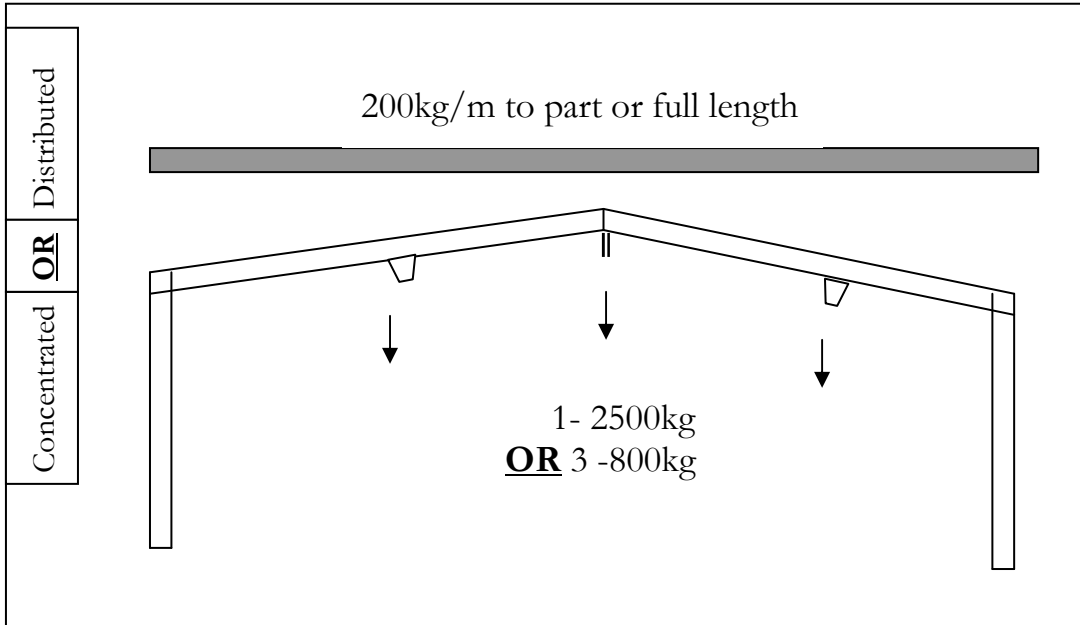
Once the timber sports floor has been placed, the Gym floor can only be loaded in accordance with the load limitations of the sports floor, as described by Installer.



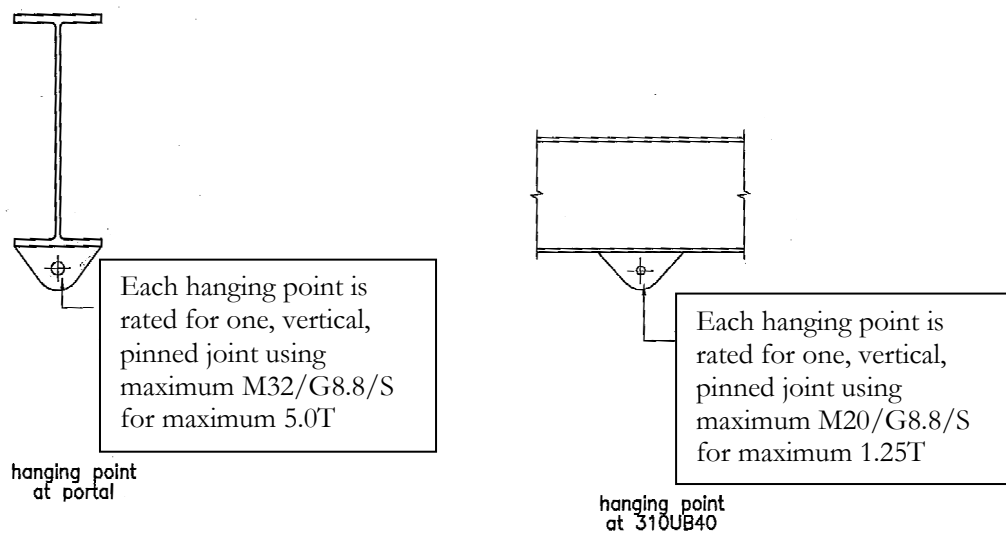
**FIGURE 1; RIGGING LOADS TO MAIN GYM PORTALS**



**FIGURE 2; RIGGING LOADS TO MAIN GYM INTERMEDIATE BEAMS**



**FIGURE 3; RIGGING LOADS TO WARM UP GYM PORTALS**



**FIGURE 4; UNFACTORED RIGGING LOAD LIMITATIONS**