Digger placement on a truck

The NZ Truck Loading Code currently has general guidance which states;

Any load carried on a vehicle must be sufficiently restrained to prevent movement caused by the forces that arise from the vehicle passing over road undulations, when it changes direction or when it is being braked or accelerated.

However, there is not clear guidance for a vehicle carrying a wheeled or tracked machine in a bin designed for bulk loads. The vehicle will be subjected to the same forces, but the machine could easily be secured and restrained by the structure and dimensions of the bin provided the machine sits tight in the bin or is balked with suitable material to prevent it from moving. This infosheet is designed to provide that guidance.

The Centre of Gravity (CoG) of the machine should be no higher than 75% of the sides, headboard and tailgate eg if the sideboard is 1.2mtr, CoG needs to be no higher than 900mm.

The digger must sit tight in the bin or within 100mm of the sides, front and rear so that it can’t move around.

Balking material may also be used provided it is of solid construction and at least 100 x 100mm.

While no further restraint is required any loose items on the machine or in the bin will require additional approved restraints attached to certified load anchor points.

The intention of this sheet is for it to be put out to the Police Commercial Vehicle Safety Team and the Road Transport Forum (RTF) as a guide until Waka Kotahi finishes work on a new version of the Truck Load Code that will include this and some other changes.
The CoG of a tracked machine is generally the base of the cab, if you can see the top of the tracks above the sides it does not meet the 75% CoG.

The CoG of a wheeled machine is generally just above the top of the rim, if you can see the top of the rim above the sides it does not meet the 75% CoG.

Note; the vehicle must also be capable of safely transporting the machine, commonly machines can show their weight in the model designation ie a 45, 450 or 4500 model will generally be 4500kgs and 15, 150 or 1500 is 1500kgs etc

For further information, please contact vehicles@nzta.govt.nz