

TAD 0032 Large Goods Vehicle Parking

1. This Document Applies To:

This Technical Advice Document provides the minimum standards that shall be applied to all Liberty Steel

- Trailer parks
 - Lorry parks
 - Loading bays
- with respect to parking of large goods vehicles.

2. Essential Requirements

1. Parking areas will have safe access clearly marked between bays.
2. Gradients of the parking areas must be determined. Parking bays with gradients steeper than 1 in 100, must be fitted with ground chocks to prevent the vehicle rolling if the driver fails to apply the park brakes.
3. Signage shall be erected to instruct drivers to apply cab parking brakes when the vehicle is stationary, and to apply trailer parking brakes if the trailer is to be uncoupled from the tractor unit.
4. All vehicles shall have hand brake alarms fitted in the cab by a date agreed at each site.
5. Spot checks and audits must be undertaken to ensure compliance with the above points.

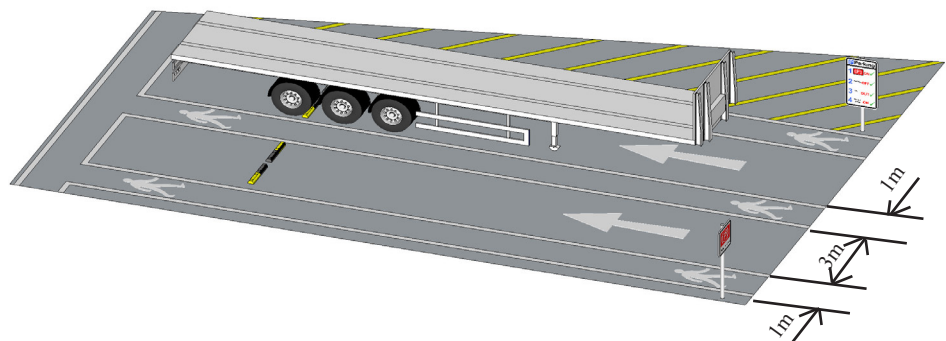
3. Parking Bay Layout

Parking bays must be a minimum of 3 metres in width, bounded either side by walkways no less than 1 metre in width.

Fixed ground chocks are to be fitted if the gradient of the parking bay exceeds 1 in 100.

3.1 Safe Access

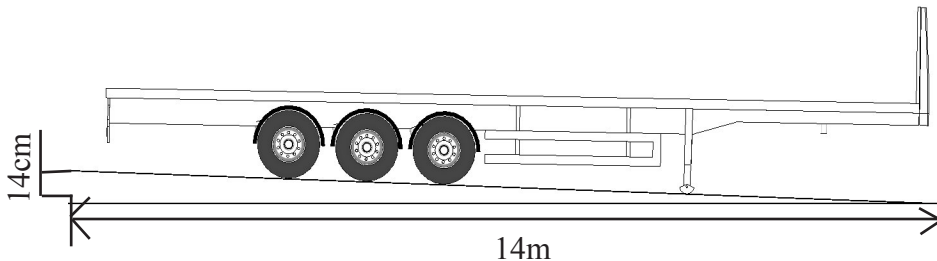
Walkways to be clearly marked.



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3.2 Gradient



Arranging parking bays across gradients can reduce the gradient in the direction of travel to an acceptable level.

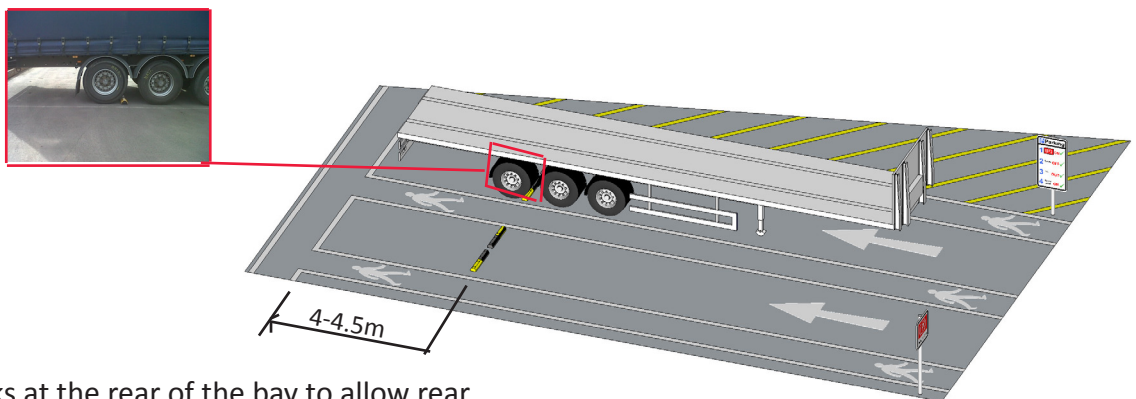
The maximum recommended gradient for an LGV parking bay is 1 in 100 (1%), as illustrated above.

Gradients can be readily checked using DIY self-levelling laser levels and a tape measure.

4. Ground chocks - must be fitted if gradient is steeper than 1:100

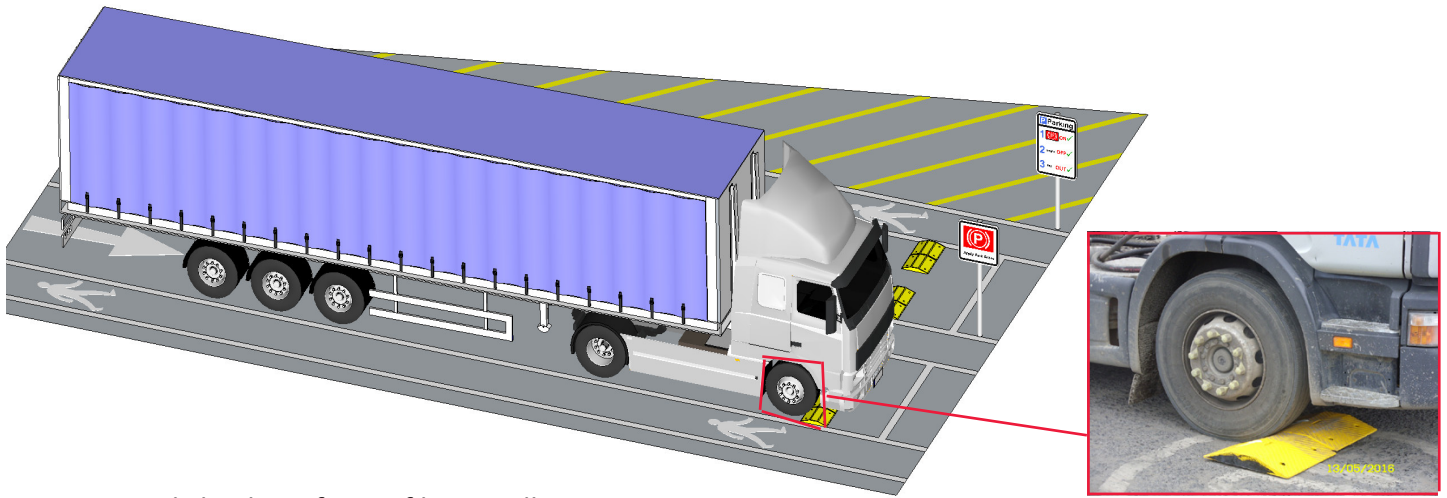
Where the gradient of a parking bay exceeds 1:100 i.e. there is a risk of the vehicle rolling if the park brake is not applied, ground chocks must be fitted. The type and position of the chocks will vary depending on the parking area.

4.1 Trailer Parks i.e. locations where trailers are uncoupled from the tractor unit



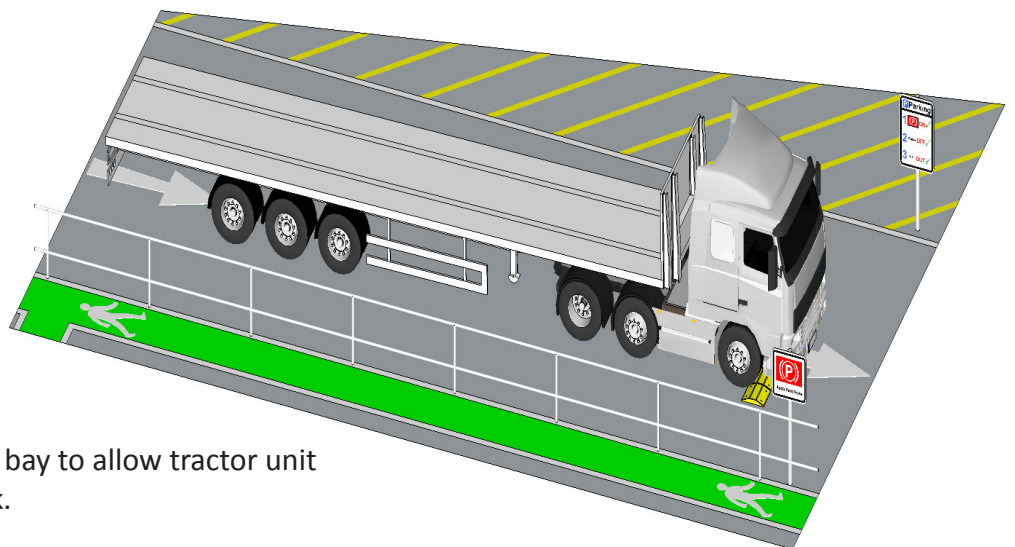
Fit ground chocks at the rear of the bay to allow rear bogie axle to be reversed over the chock.

4.2 Lorry Parks i.e. locations where trailers are NOT uncoupled from the tractor unit



Fit ground chocks at front of bay to allow tractor unit to be parked up to the chock.

4.3 Loading bays i.e. where trailers are NOT uncoupled from the tractor unit



Fit ground chocks at front of bay to allow tractor unit to be parked up to the chock.

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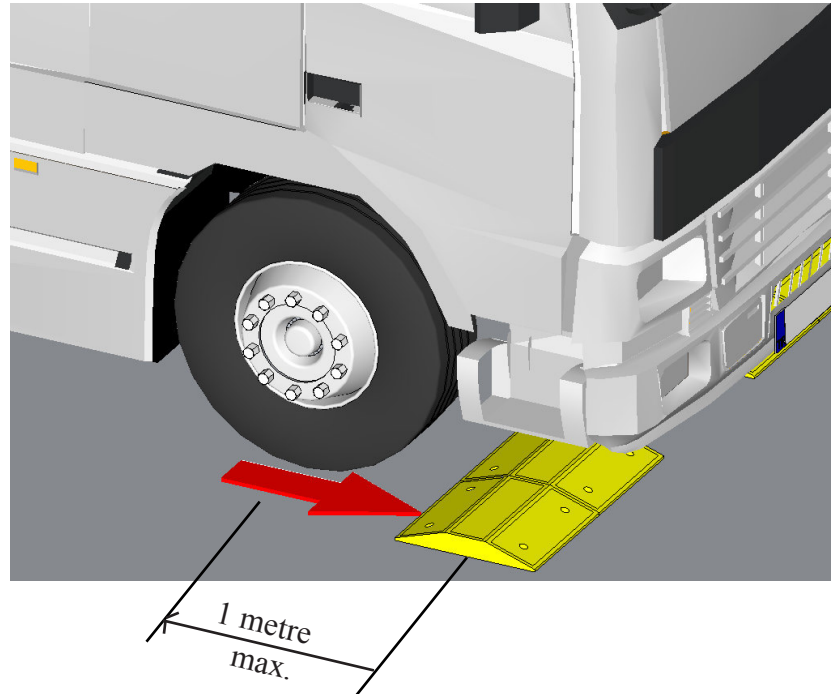
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4.4 Ground chock recommendations

1m rule

Tests have shown that a fully laden HGV will be arrested by a 75mm high ground chock (or speed hump) if the wheel is within 1 metre of the chock centre line.

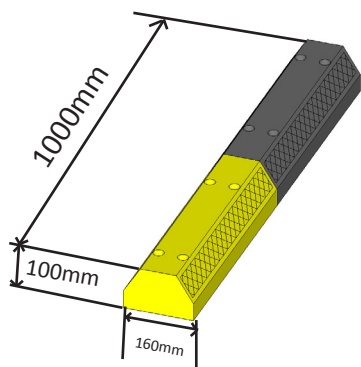
Ideally, park up to the chock.



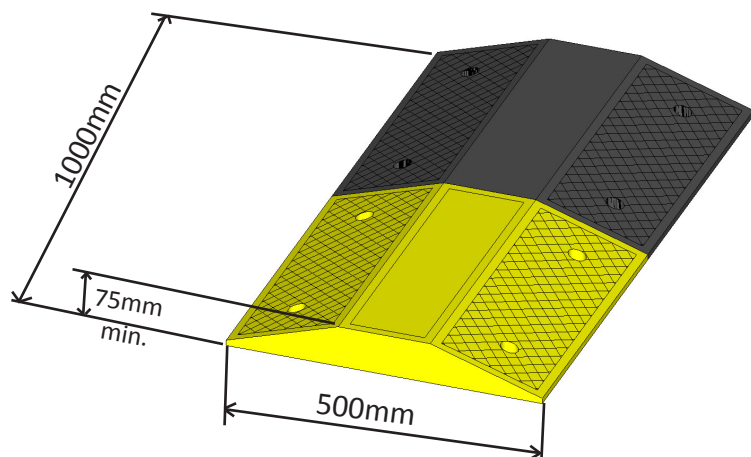
Recommended sizes

Wheel stops / ground chocks (or speed humps) should be a minimum height of 75 mm and 1000 mm wide per side.

Different types can be used depending on the location and required use:



Reverse-over trailer wheel stops

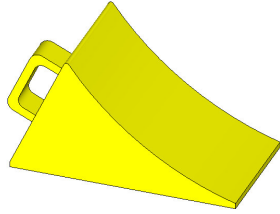


Driver-over ground chocks/humps

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Where it is impossible to fix permanent ground chocks, and the gradient is above 1:100, then individual wheel chocks should be used:



Individual wheel chocks

Note:

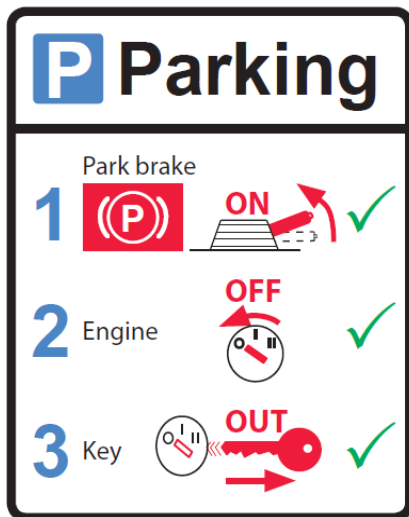
Chocks are required on both sides of the vehicle.

5. Signage

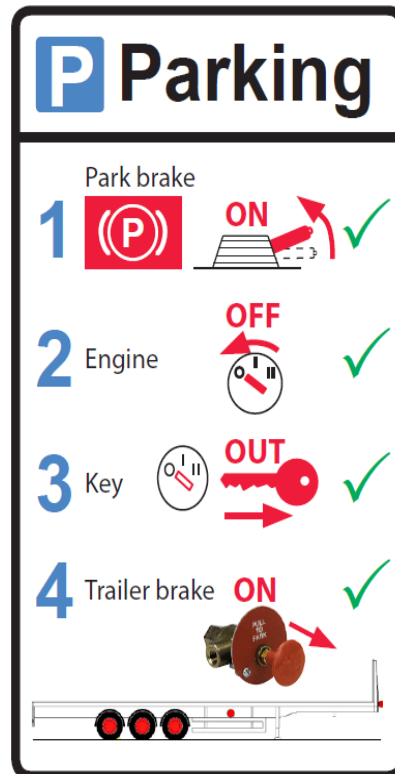
Signs are to be posted in appropriate areas to remind / instruct drivers to:

- apply the tractor unit park brake, turn the engine off and remove the key before exiting the cab.
- apply the trailer park brake before uncoupling the tractor unit from the trailer.

See options below and suggested minimum sizes:



Lorry park or loading bay sign
800 x 1000 mm



Trailer park sign
800 x 1400 mm

Additional signs to be fitted as appropriate:



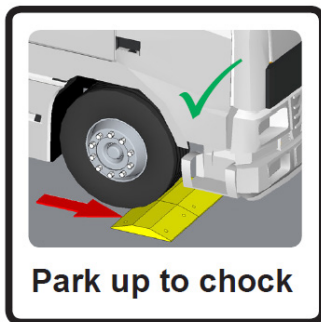
General parking sign
800 x 800 mm



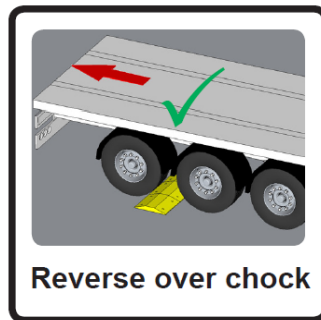
Apply park brake sign
800 x 800 mm

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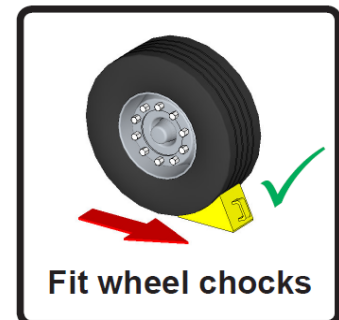
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Lorry park or loading bay fitted with ground chocks 800 x 800 mm



Trailer park fitted with ground chocks 800 x 800 mm



Parking areas with slope exceeding 1:100, with no fixed ground chocks 800 x 800 mm

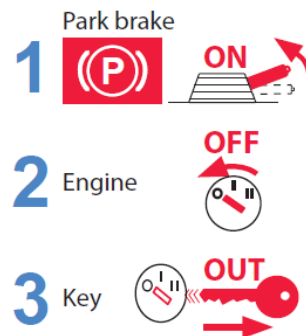
6. Park brakes

6.1 Tractor unit brake and warning alarms

Before exiting the tractor unit, the driver must always

1. engage the tractor unit park brake,
2. switch off the engine and
3. remove the ignition keys.

Tractor units should be fitted with audible alarms to warn the driver if the tractor unit park brake has not been applied before exiting the cab.



Minimum requirement for transient vehicles is the manufacturers' fitted alarm. Vehicles permanently on Liberty Steel sites shall be fitted with hand brake alarms to the Liberty Steel specification.

Liberty Steel specification for hand brake alarms:

- The alarm must operate regardless of ignition key state.
- The alarm must sound if the hand brake is OFF and the driver door is opened. Activation if the passenger door is opened recommended but not mandatory.
- The internal alarm sounder must be a minimum 90dB.
- The alarm must be clearly audible outside the vehicle. In practice this will normally require an external sounder as an internal sounder will not be clearly audible if doors are closed.
- It is recommended that the alarm is easily distinguishable from other alarms e.g. a voice command to apply the hand brake rather than a bleep or a buzzer.
- The only action to stop the alarm sounding must be to put the hand brake ON.

6.2 Trailer park brake

Trailer park brakes must be applied on all uncoupled trailers. Disconnecting the red air line does not automatically engage the trailer park brake. The trailer park brake must be activated separately. The trailer park brake is a simple push / pull button, typically located at the trailer headboard or on the trailer chassis.

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Systems are available to reduce the risk of runaway vehicles or trailers:

- The Pownall Auto-Set Trailer Park Valve automatically sets the trailer park brake when the red line is disconnected.
- The Haldex TRCM+ automatically activates the trailer brakes when the red line is disconnected and ensures the trailer park brakes remain active even when the red line is inadvertently connected first instead of the yellow line.

Liberty Steel sites will conduct regular spot checks and audits to ensure compliance with hand brake alarms and the application of trailer park brakes.

7. Coupling and uncoupling procedures main steps

7.1 Coupling procedure

1. Slowly reverse the tractor unit towards the trailer in a straight line. STOP when the 5th wheel is level with the front of the trailer.
2. Apply tractor unit parking brake  , turn off ignition, remove the key.
3. Check the trailer park brake is applied.  ON
4. Check height of trailer coupling relative to 5th wheel. Adjust unit suspension height or trailer leg height as necessary.
5. Slowly reverse tractor unit under the trailer until the 5th wheel jaws engage.
6. Carry out 2 good ‘pull tests’ to ensure jaws are properly engaged.
7. Apply tractor unit parking brake  , turn off ignition, remove the key.
8. Visually check that the 5th wheel jaws have engaged the king pin correctly and that the release handle is in the ‘locked’ position. Fit the security dog clip.
9. Connect the service airline (yellow) and electrical connections.
10. Connect the emergency airline (red) and watch for any unexpected movement. Note: If the trailer moves, immediately disconnect the emergency airline (red) and check that the tractor unit parking brake has been applied.
11. Wind up the trailer legs and stow the handle.
12. Finally, release the trailer park brake  OFF before pulling away.





Dog clip fitted through hole in the plate beneath the locking arm.

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7.2 Uncoupling procedure

1. Apply tractor unit parking brake , turn off ignition, remove the key.
2. Apply the trailer park brake.  ON
3. Lower the landing legs until they are in contact with the ground.
4. Disconnect air and electrical lines and stow them so that water and dirt cannot enter the connections.
5. Remove the security dog clip, then pull the release handle to disengage the 5th wheel jaws.
6. Slowly pull out from under the trailer, checking in your mirrors that the trailer settles safely on its landing legs.