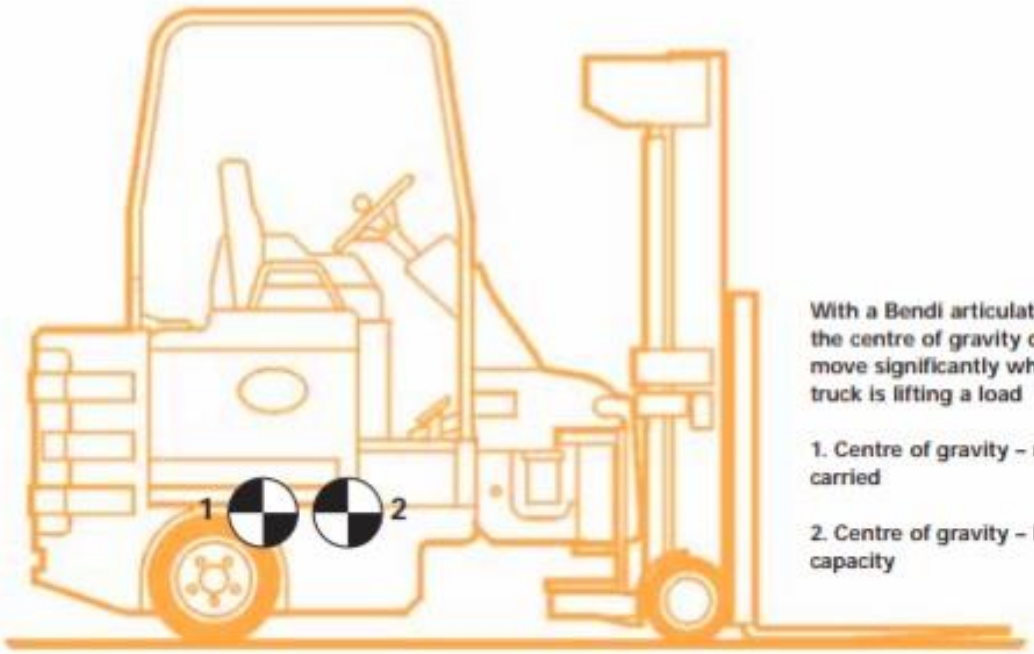
PIVOT STEER STABILITY



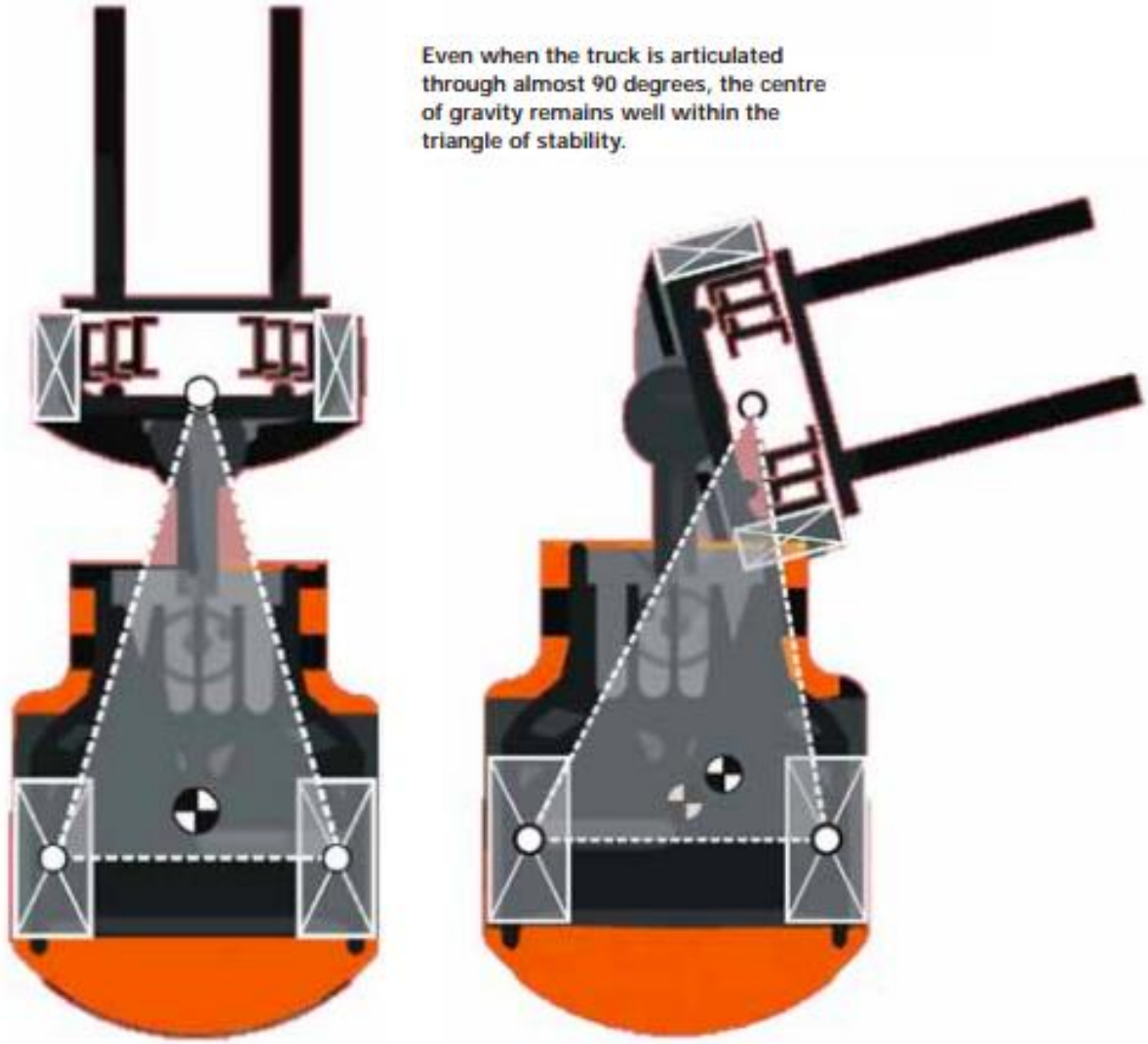
With a Bendi articulated truck, the centre of gravity does not move significantly when the truck is lifting a load

1. Centre of gravity – no load carried

2. Centre of gravity – loaded to capacity

In the straight ahead position, the Bendi is immensely stable. In this position, the heavy counterweight and battery plus the length of the truck provide excellent stability As the forks are rotated, the triangle of stability changes shape and the centre of gravity move closer to the edge of the triangle. With the forks at almost 90 degrees, the truck is in its tilt test position. This is where the centre of gravity gets closest to the edge of the triangle of stability. It is in this position that the Bendi truck has been extended to full height and tested for lifting capacity.

This design allows Bendis to lift to over 12m and retain a degree of stability that's impossible with counterbalance machines.



Even when the truck is articulated through almost 90 degrees, the centre of gravity remains well within the triangle of stability.

Four wheel articulated truck

On a Bendi articulated truck, the triangle of stability is reversed, with the centre of gravity at the broadest point of the triangle.

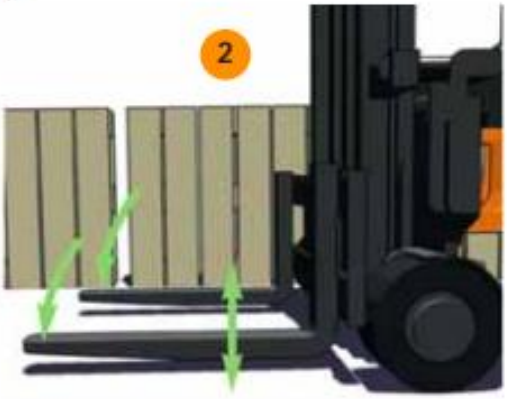
Four wheel articulated truck

On a four wheel articulated truck, the rear biased weight distribution makes rear wheel drive the most suitable option

Three wheel articulated truck

On a three wheel articulated truck, the triangle of stability is the same as its four wheel cousin. However, greater traction is gained with front biased weight distribution and front wheel drive.

1. As you approach the pallet you want to retrieve, you should manoeuvre the machine over the opposite side of the aisle, leaving about six to eight inches between the chassis and edge of the aisle.
Once the centre of the front wheels and the centre-block of the pallet to be retrieved are aligned, the operator must stop the machine.



2. With the parking brake applied, set the correct fork height and tilt. The tips of the forks should be within the height of the pallet and the fork blades should be level. Doing this will reduce the risk of catching the pallet when entering.

3. With all brakes released, turn the forks smoothly towards the pallet to be retrieved. If the pallet is above ground level, the forks can also be raised to the correct height during this step, provided no obstructions are present.

4. When at the correct level, drive the forks into the pallet. Start by driving forwards and once the forks are pointing straight into the pallet, start removing steering lock, to keep the forks straight. Unlike other forklifts, you can use the sideshift here,if fitted to adjust fork positioning.

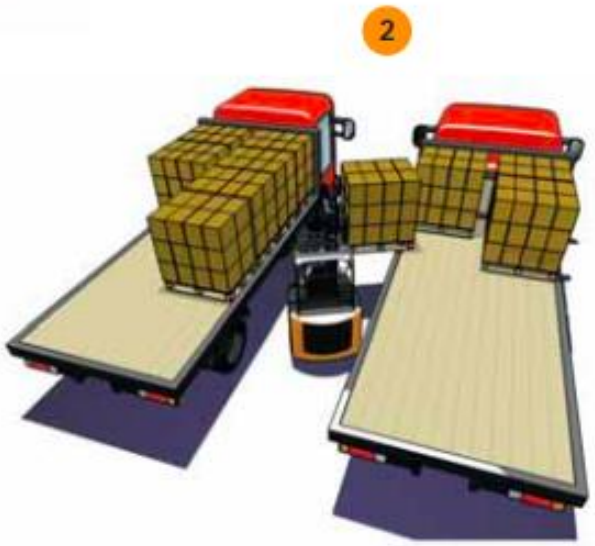
5.Once inserted up to the heels, apply the parking brake, lift the pallet and cradle the load with a small amount of back tilt.

6. Put the truck into reverse and drive backwards to withdraw the pallet from the location. Use the steering (apply more lock to keep the pallet straight.

7. Once full lock has been achieved, keep driving the truck back. When roughly in the position shown, stop. Then without driving, straighten the steering so the forks are pointing straight ahead.

Finally, apply the parking brake and set the load to a suitable travelling position. Move away as soon as you are ready/able to.

A Bendi can be used one of two ways when loading and unloading road vehicles such as flat beds and articulated trailers. This first way will be more familiar to seasoned counterbalance drivers. The operation should be started from the front or the headboard of the vehicle and then working back on alternate sides. Drive the Bendi any way you like, in the confines of the space available and within the guidelines given during training:

1. Try not to stack the pallet with the forks facing directly forwards. Instead, angle the truck as shown above and you'll have great visibility. When it comes to unloading, again work from the rear forward, if possible.

When space is at a premium within the yard or loading area, it makes sense to use the Bendi's capabilities to your advantage. If two lorries are parked no closer than about 2 metres apart, you can load and unload pallets from them as you would within the aisle. This saves time over shunting trailers and lorries around.