

2 Transfer by rolling

2.1 Swap bodies are carried by road on special swap **carrier** vehicles. The carrier vehicle is capable to be lowered on its wheels and to roll under the swap body standing on its supports. By lifting the vehicle to its normal operating position, the swap body is taken onto the chassis of the carrier vehicle. Then the support legs are retracted.

2.2 Road vehicles may be rolled onto a ship driven by their own engine. Semi-trailers are normally carried on board ships without tractor unit. They are loaded to and unloaded from the ships by specific port internal movement vehicles. These vehicles should be conspicuously painted or marked and fitted with a flashing or rotating yellow beacon. The drivers' cab should provide good all round visibility, with minimal obstruction of the driver's view. Only authorized persons should be allowed on the ramp or any vehicle deck while vehicle movements are taking place. The movement of persons on foot on the ramp should be strictly controlled and minimized.

2.3 The **cargo decks** of railway ferries are equipped with several rail tracks which can be accessed by a movable ramp which is fitted with rails, capable to be connected to the rail tracks on board. The maximum permissible kink angle between the ramp and the level of the rail deck in the ship is restricted and depends on the type of wagons shunted into the ship. In specific cases this angle may be as low as 1.5°.