§ 1918.86 Roll-on roll-off (Ro-Ro) operations (see also § 1918.2, Ro-Ro operations, and § 1918.25).

(a) Traffic control system. An organized system of vehicular and pedestrian traffic control shall be established and maintained at each entrance/exit ramp and on ramps within the vessel as traffic flow warrants.

(b) Ramp load limit. Each ramp shall be plainly marked with its load capacity. The marked capacity shall not be exceeded.

(c) Pedestrian traffic. Bow, stern, and side port ramps also used for pedestrian access shall meet the requirements of § 1918.25. Such ramps shall provide a physical separation between pedestrian and vehicular routes. When the design of the ramp prevents physical separation, a positive means shall be established to prevent simultaneous use of the ramp by vehicles and pedestrians.

(d) Ramp maintenance. Ramps shall be properly maintained and secured.

(e) Hazardous routes. Before the start of Ro-Ro operations, the employer shall identify any hazardous routes or areas that could be mistaken for normal drive-on/drive-off routes. Such hazardous routes shall be clearly marked and barricaded.

(f) Air brake connections. Each tractor shall have all air lines connected when pulling trailers equipped with air brakes and shall have the brakes tested before commencing operations.

(g) Trailer load limits. After July 27, 1998, flat bed and low boy trailers shall be marked with their cargo capacities and shall not be overloaded.

(h) Cargo weights. Cargo to be handled via a Ro-Ro ramp shall be plainly marked with its weight in pounds (kilograms). Alternatively, the cargo stow plan or equivalent record containing the actual gross weight of the load may be used to determine the weight of the cargo.

(i) Tractors. Tractors used in Ro-Ro operations shall have:

1. Sufficient power to ascend ramp inclines safely; and
2. Sufficient braking capacity to descend ramp inclines safely.

(j) Safe speeds. Power driven vehicles used in Ro-Ro operations shall be operated at speeds that are safe for prevailing conditions.

(k) Ventilation. Internal combustion engine-driven vehicles shall be operated only where adequate ventilation exists or is provided. (Air contaminant requirements are found in § 1918.94 and part 1910, subpart Z, of this chapter.)

(l) Securing cargo. Cargo loaded or discharged during Ro-Ro operations shall be secured to prevent sliding loads.

(m) Authorized personnel. Only authorized persons shall be permitted on any deck while loading or discharging operations are being conducted. Such authorized persons shall be equipped with high visibility vests (or equivalent protection10).

NOTE TO PARAGRAPH (m): High visibility vests or equivalent protection means high visibility/retro-reflective materials which are intended to make the user clearly visible by day through the use of high visibility (fluorescent) material and in the dark by vehicle headlights through the use of retro-reflective material. For example, an acceptable area of material for a vest or equivalent protection is .5 m² (760 in.²) for fluorescent (background) material and .13 m² (197 in.²) for retro-reflective material. Vests or equivalent protection, such as high visibility/retro-reflective coveralls, that are available for industrial use, may also be acceptable.

(n) Vehicle stowage positioning. Drivers shall not drive vehicles, either forward or backward, while any personnel are in positions where they could be struck.


§ 1918.87 Ship's cargo elevators.

(a) Safe working load. The safe working loads of ship’s cargo elevators shall be determined and followed.

(b) Load distribution. Loads shall be evenly distributed and maintained on the elevator’s platform.

(c) Elevator personnel restrictions. Personnel shall not be permitted to ride on the elevator’s platform if a fall hazard exists. (See § 1918.2.)

(d) Open deck barricades. During elevator operation, each open deck that

10Decals on hard hats will not be considered equivalent protection for the purposes of this paragraph.