

CHAPTER 3

DOCKS

3-1. General.

Dock space for shipping and receiving terminals is the same as that for most general purpose warehouses. Dock heights on the truck side of the terminal should be approximately 1300 mm (4 ft 4 in) above the pavement, with hydraulic ramps (fig 3-1) at each truck berth to bring the height of truck bed in line with the dock height. An additional type of dock ramp is available, as shown in figure 3-2. This hooks to the truck bed and rests on the dock floor for transition of the height differential. On the rail side of the terminal, dock heights should be 1150 mm (3 ft 9 in) above the top of the rail. This will ensure that the rail car floor is even with dock floor, as shown in figure 3-3.

3-2. Column spacing.

Columns supporting the outer edge of the roof should be so spaced as not to interfere with the spacing of rail car doors or truck berths. Dock widths should be wide enough to allow efficient maneuvering of forklift trucks and other expected types of material handling equipment. A minimum width should be 3 m (10 ft). Forklift bumpers should be placed at both sides of all door jambs where forklift traffic will occur to prevent damage to the walls, door track and the door frame. Exterior dock space should be covered to protect workers and material from rain and snow accumulation (fig 3-4).

3-3. Truck docks.

Bumpers should be installed at the edge of the truck dock to protect the concrete from the impact of backing trucks. Wooden boards (fig 3-5) or rubber pads will serve this purpose. In addition there should be stairwells from ground level to dock height spaced along the dock if the dock runs the entire length of the building.

3-4. Interior dock space.

In colder climates, interior dock space may provide significant energy savings and more tolerable winter working conditions for dock workers. For this

type of dock, doors should be designed to be slightly larger than the opening of a standard tractor trailer and should be fitted with hoods that fit around the trailer to prevent heat loss from the work space. This method of docking requires a door for every truck berth, which is an added first cost; but the protection and energy advantages make it a feasible alternative. Additionally, as shown in figure 3-6 receiving or shipping docks can be designed with recessed wells that contain the entire trailer within the warehouse. This method also prevents heat loss and eliminates the need for exterior berthing space, but it utilizes much of the heated space for truck parking.

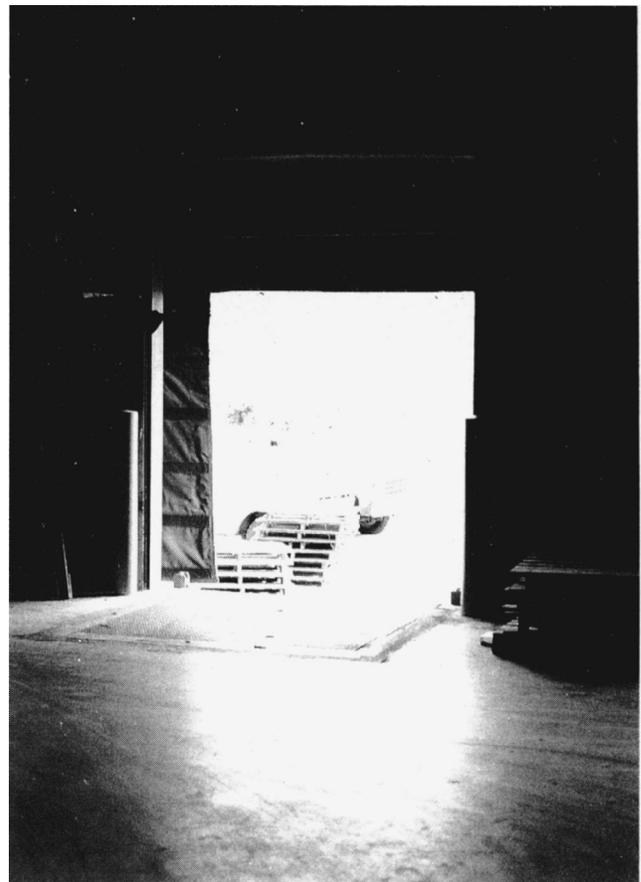


Figure 3-1. Hydraulic dock leveler.

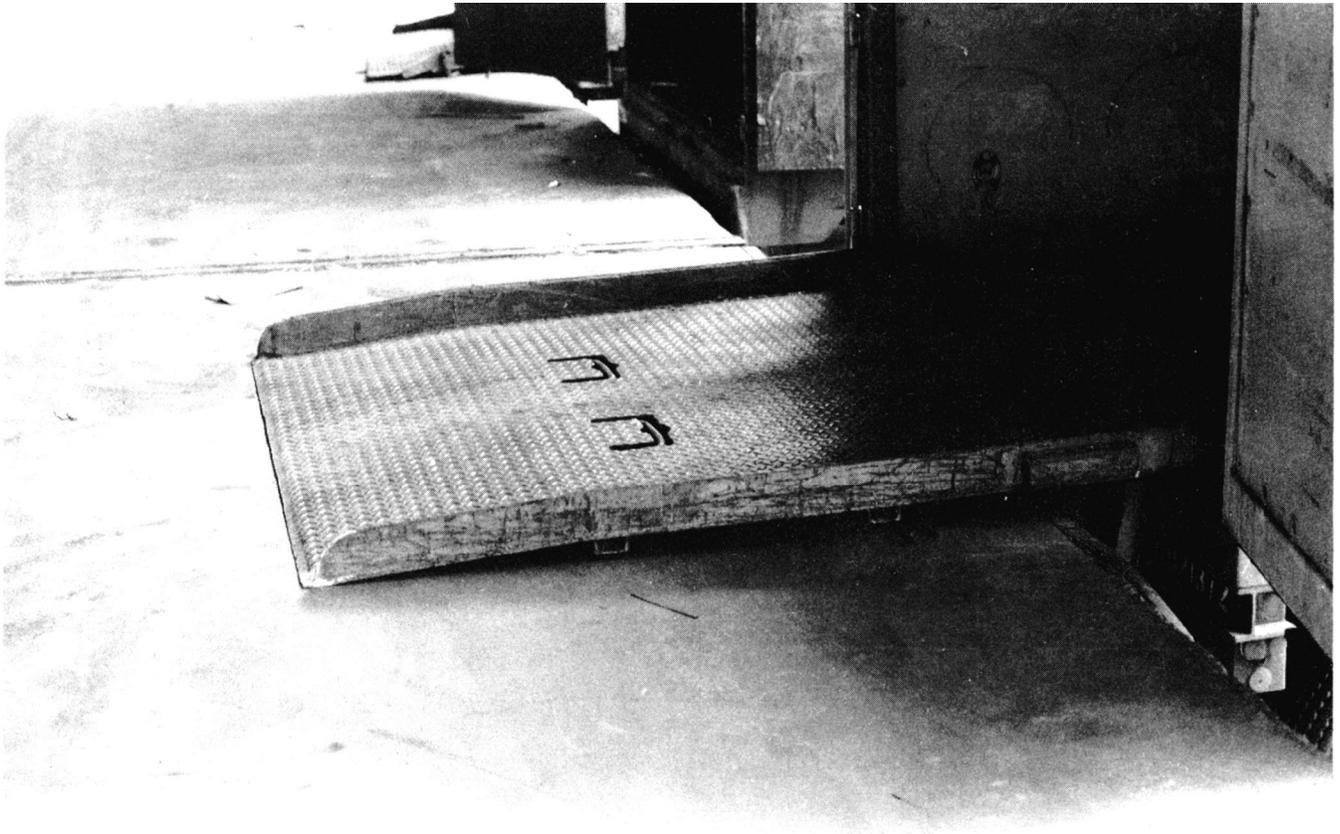


Figure 3-2. Portable dock ramp.



Figure 3-3.. Typical loading dock with height equal to rail car floor height.



Figure 3-4. Covered exterior dock space.

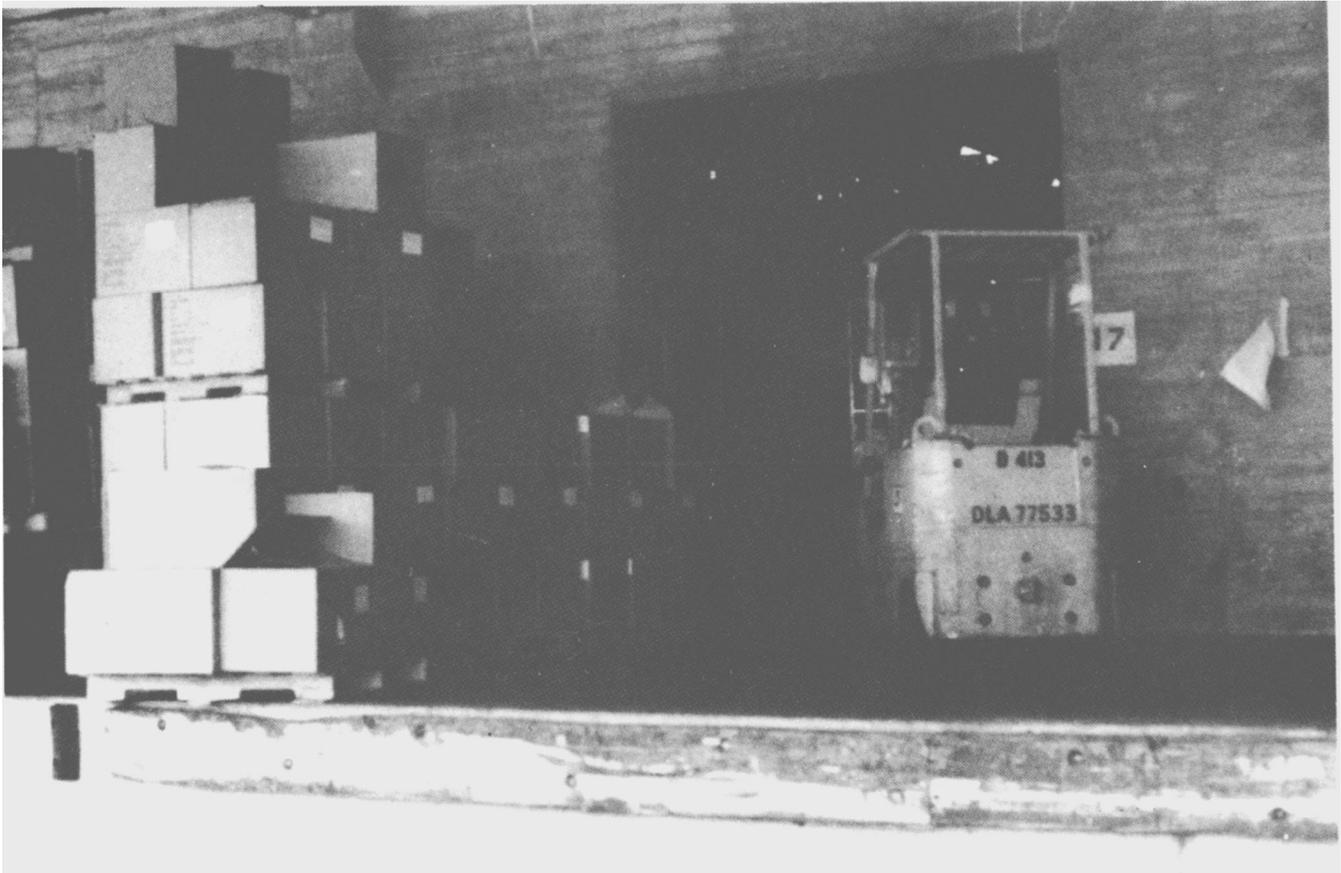


Figure 3-5. Loading dock showing wooden protective bumpers.



Figure 3-6. Interior dock space containing the entire trailer.