

GENERAL RULES

1. Closed cars for loading of Class A Explosives must be thoroughly inspected and certified for such loading by a qualified person of the originating carrier and must conform to provisions of the Department of Transportation regulations governing such inspection and certification.
2. Closed cars for loading of Class B Explosives must be in good condition and into which sparks cannot enter.
3. Open-Top cars or flat cars may be used for loading of wooden boxed bombs, rocket ammunition or rocket motors, Class A or Class B explosives, which, due to size, cannot be loaded in closed cars and as so provided for in the Department of Transportation regulations. Open-top cars selected for such loading of Class A explosive items must be inspected and certified by a qualified person of the originating carrier.
4. Class C Explosives may be loaded into any closed car in good condition.
5. The weight of the load in or on a car must not exceed the load limit stenciled on the car.
6. The weight of the load on one truck must not exceed one-half (1/2) of the load limit stenciled on the car. In case of doubt, the weight on each truck must be verified by weighing the loaded car.
7. The percentages (see Page 6) of stenciled load limits must not be exceeded for loads located between truck centers, measured lengthwise of car.
8. Combined center of gravity (measured from top of rail) of car and load must not exceed 98". (See Rule 89 - Field Manual - A.A.R. (Mechanical Division) Interchange Rules.)

Cars with 4-wheel trucks having 6-1/2 x 12" journals or larger, having truck centers within the range of 28' to 45' and loaded center of gravity exceeding 84" above top of rail, to be equipped with 3-11/16" travel springs and approved supplemental snubbing device or devices in each spring group. (See Rule 88 - Office Manual - A.A.R. (Mechanical Division) Interchange Rules.)
9. All steel cars (i.e., cars with steel lining and steel floors, nailable or non-nailable) must not be used for the loading of bulk explosives such as T.N.T., black powder, dynamite, propellant powders and similar explosives. Unless contact with the steel lining is avoided by method of placement of lading within the car or by use of wood, plywood or tempered hardboard, such cars should not be used for loading of unboxed items which overhang pallets, such as bombs or propelling charges and propelling cartridges packed in metal containers.
10. Cars equipped with bracing devices (belt rails and crossmembers) and load divider cars **MUST NOT** be used for loading of bulk explosives such as T.N.T., black powder, dynamite, propellant powders and similar explosives, which are liable to sift or become lodged in the belt rails, floor tracks or mechanism of the bracing devices in the event of container failure.

EXCEPTION: Cars equipped with recessed, flat stock, perforated belt rails, when lined with plywood or tempered hardboard to at least one foot (1') above the lading height and provided crossmembers are not used, may be employed as a conventional box car and loaded with bulk explosives.

11. Cars with bowed ends (2" or greater) must have the ends squared by use of a bulkhead and shim material (see Pages 7-8-9) to insure a flush, solid and adequate bearing surface for the lading.
12. Tight loading - all lost space, particularly lengthwise, must be avoided by compactly loading and by exerting pressure on each package and/or unit load towards the end of the car.
13. Lengthwise voids that are not occupied by lading, such as in the doorway area of cars or which might develop from loading packages and/or unit loads of uneven lengths or from employing a staggered loading pattern, must be filled with adequately fabricated space fillers or random length solid fill material or adequately fabricated strut braced center gates.
14. Lateral voids must be filled with blocking nailed to the car floor or adequately fabricated sway braces or space fillers or combinations thereof.
15. Lading must be blocked and braced by the one who loads the car so as to prevent change of position or contact with the doors under the ordinary shocks incident to transportation.
16. Lumber used for blocking and bracing must be sound, free from cross-grain knots, knot holes or splits which impair the strength of the material or interfere with adequate nailing.
17. Nails should be used in sufficient number and of a length to provide penetration of both the blocking lumber and a minimum of 2/3 of the car floor or lining. Nails used to secure blocking to car lining should be driven into studding when possible. To avoid splitting of blocking lumber, nails must not be too large and should be used in a staggered pattern, rather than along one grain of the lumber. Whenever possible, nails should be driven straight and "toenailing" should be avoided. Nails may be common or cement-coated.
18. Partial layers must be blocked and braced in accordance with methods detailed on Pages 10 and 11 for cars with nailable wood lining or with methods detailed on Pages 12 thru 20 for cars with steel lining.
19. Doorway protection (see Page 21) must be provided for lading extending into the doorway area of cars, EXCEPT that no doorway protection is required for palletized unit loads or large containers or large crates if not more than one-half (1/2) of the length of the unit load or large container or large crate extends beyond a doorpost on either side of the car.
20. Plug doors in cars so equipped will be protected from pressure of lading loaded directly adjacent thereto by use of door spanner lumber (see Pages 128 and 129) or by use of steel strapping and strapping boards (see Pages 38, 39, 41, 51, 52, 60, 66, 68, 74, 136 and 140) to laterally unitize and bundle the lading that extends into the doorway area. No dunnaging material will be nailed to plug doors unless the doors are equipped with an adequate nailing strip.
21. For methods of bracing less-carload (L/C/L) shipments, see Bureau of Explosives Pamphlet No. 6 or applicable approved Military drawings.