around handle. Minimum drop of handles shall be 12 inches; maximum, 15 inches over all. (See plate B.)

- (vi) Handles of uncoupling levers of the "rocking" or "push-down" type shall be not less than 18 inches from top of rail when lock block has released knuckle, and a suitable stop shall be provided to prevent inside arm from flying up in case of breakage.
- (3) Location. One on each end of car. When single lever is used, it shall be placed on left side of end of car.
- (Secs. 2, 4, and 6, 27 Stat. 531, as amended; secs, 1 and 3, 32 Stat. 943, as amended; sec. 6(e) and (f), 80 Stat. 939 (45 U.S.C. 2, 4, 6, 8, and 10, 11–16 and 49 U.S.C. 103(c)(1))

[33 FR 19663, Dec. 25, 1968, as amended at 49 FR 26745, June 29, 1984]

## § 231.2 Hopper cars and high-side gondolas with fixed ends.

(Cars with sides more than 36 inches above the floor are high-side cars.)

- (a) Hand brakes—(1) Number. Same as specified for "Box and other house cars" (see §231.1(a)(1)).
- (2) *Dimensions*. Same as specified for "Box and other house cars" (see §231.1(a)(2)).
- (3) Location. (i) Each hand brake shall be so located that it can be safely operated while car is in motion.
- (ii) The brake shaft shall be located on end of car to the left of, and not more than 22 inches from, center.
- (iii) Carriers are not required to change the brakes from right to left side on steel or steel-underframe cars with platform end sills, in service July 1, 1911, except when such appliances are renewed, at which time they must be made to comply with the standards prescribed.
- (iv) Carriers are not required to change the location of brake wheels and brake shafts on cars in service July 1, 1911, where the appliances are within 3 inches of the required location, except that when cars undergo regular repairs they must then be made to comply with the standards prescribed.
- (4) Manner of application. Same as specified for "Box and other house cars" (see §231.1(a)(4)).
- (b) Brake step. Same as specified for "Box and other house cars" (see §231.1 (b)).

- (c) Sill steps. Same as specified for "Box and other house cars" (see §231.1(d)).
- (d) Ladders—(1) Number. Same as specified for "Box and other house cars" (see §231.1(e)(1)).
- (2) Dimensions. Same as specified for "Box and other house cars" (see §231.1(e)(2)), except that top ladder tread shall be located not more than 4 inches from top of car.
- (3) Location. Same as specified for "Box and other house cars" (see §231.1(e)(3)).
- (4) Manner of application. Same as specified for "Box and other house cars" (see §231.1(e)(4)).
- (e) Side handholds. Same as specified for "Box and other house cars" (see §231.1(h)).
- (f) Horizontal end handholds. Same as specified for "Box and other house cars" (see §231.1(i)).
- (g) Vertical end handholds. Same as specified for "Box and other house cars" (see §231.1(j)).
- (h) *Uncoupling levers*. Same as specified for "Box and other house cars" (see §231.1(k)).
- (i) End-ladder clearance. (1) No part of car above end sills within 30 inches from side of car, except buffer block, brake shaft, brake wheel, brake step, or uncoupling lever shall extend to within 12 inches of a vertical plane parallel with end of car and passing through the inside face of knuckle when closed with coupler horn against the buffer block or end sill, and no other part of end of car or fixtures on same above end sills, other than exceptions herein noted, shall extend beyond the outer face of buffer block.
- (2) Carriers are not required to make changes to secure additional end-ladder clearance on cars in service July 1, 1911, that have 10 or more inches end-ladder clearance within 30 inches of side of car, until car is shopped for work amounting to practically rebuilding body of car, at which time they must be made to comply with the standards prescribed.

## § 231.3 Drop-end high-side gondola cars.

(a) Hand brakes—(1) Number. Same as specified for "Box and other house cars" (see §231.1(a)(1)).

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- (2) *Dimensions*. Same as specified for "Box and other house cars" (see §231.1(a)(2)).
- (3) Location. (i) Each hand brake shall be so located that it can be safely operated while car is in motion.
- (ii) The brake shaft shall be located on end of car to the left of center.
- (iii) Carriers are not required to change the brakes from right to left side on steel or steel-underframe cars with platform end sills, in service July 1, 1911, except when such appliances are renewed, at which time they must be made to comply with the standards prescribed.
- (4) Manner of application. Same as specified for "Box and other house cars" (see §231.1(a)(4)).
- (b) Sill steps. Same as specified for "Box and other house cars" (see \$231.1(d)).
  - (c) Ladders—(1) Number. Two.
- (2) Dimensions. Same as specified for "Box and other house cars" (see §231.1(e)(2)), except that top ladder tread shall be located not more than 4 inches from top of car.
- (3) Location. (i) One on each side, not more than 8 inches from right end of car, measured from inside edge of ladder stile or clearance of ladder treads to corner of car.
- (ii) Carriers are not required to change the location of ladders on cars in service July 1, 1911, where the appliances are within 3 inches of the required location, except that when cars undergo regular repairs they must then be made to comply with the standards prescribed.
- (4) Manner of application. Same as specified for "Box and other house cars" (see §231.1(e)(4)).
- (d) Side handholds. Same as specified for "Box and other house cars" (see §231.1(h)).
- (e) Horizontal end handholds—(1) Number. Four.
- (2) *Dimensions*. Same as specified for "Box and other house cars" (see §231.1(i)(2)).
- (3) Location. (i) One near each side of each end of car on face of end sill. Clearance of outer end of handhold shall be not more than 16 inches from side of car.
- (ii) Carriers are not required to change the location of handholds on

- cars in service July 1, 1911, except end handholds under end sills, where the appliances are within 3 inches of the required location, except that when cars undergo regular repairs they must then be made to comply with the standards prescribed.
- (4) Manner of application. Same as specified for "Box and other house cars" (see §231.1(i)(4)).
- (f) Uncoupling levers. Same as specified for "Box and other house cars" (see §231.1(k)).
- (g) End ladder clearance. (1) No part of car above end sills within 30 inches from side of car, except buffer block, brake shaft, brake wheel or uncoupling lever shall extend to within 12 inches of a vertical plane parallel with end of car and passing through the inside face of knuckle when closed with coupler horn against the buffer block or end sill, and no other part of end of car or fixtures on same above end sills, other than exceptions noted in this subparagraph, shall extend beyond the outer face or buffer block.
- (2) Carriers are not required to make changes to secure additional end-ladder clearance on cars in service July 1, 1911, that have 10 or more inches end-ladder clearance, within 30 inches of side of car, until car is shopped for work amounting to practically rebuilding body of car, at which time they must be made to comply with the standards prescribed.

## § 231.4 Fixed-end low-side gondola and low-side hopper cars.

- (Cars with sides 36 inches or less above the floor are low-side cars.)
- (a) Hand brakes—(1) Number. Same as specified for "Box and other house cars" (see §231.1(a)(1)).
- (2) *Dimensions*. Same as specified for "Box and other house cars" (see §231.1(a)(2)).
- (3) Location. (i) Each hand brake shall be so located that it can be safely operated while car is in motion.
- (ii) The brake shaft shall be located on end of car, to the left of and not more than 22 inches from center.
- (iii) Carriers are not required to change the brakes from right to left side on steel or steel-underframe cars with platform end sills, in service July 1, 1911, except when such appliances are