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(a) A wheel flange on the car is worn to a thickness of $\frac{7}{8}$ of an inch, or less, at a point $\frac{3}{8}$ of an inch above the tread of the wheel;

(b) The height of a wheel flange on the car, from the tread to the top of the flange, is $1\frac{1}{2}$ inches, or more;

(c) The thickness of a rim of a wheel on the car is $\frac{11}{16}$ of an inch, or less;

(d) A wheel rim, flange, plate, or hub area on the car has a crack or break;

(e) A wheel on the car has a chip or gouge in the flange that is $1\frac{1}{2}$ inches in length and $\frac{1}{2}$ inch in width, or more;

(f) A wheel on the car has—

(1) A slid flat or shelled spot that is more than $2\frac{1}{2}$ inches in length; or

(2) Two adjoining flat or shelled spots each of which is more than two inches in length;

(g) A wheel on the car shows evidence of being loose such as oil seepage on the back hub or back plate;

(h) A wheel on the car shows signs of having been overheated as evidenced by a reddish brown discoloration, to a substantially equal extent on both the front and the back face of the rim, that extends on either face more than four inches into the plate area measured from the inner edge of the front or back face of the rim; or,

(i) A wheel on the car has been welded unless the car is being moved for repair in accordance with §215.9 of this part.

[44 FR 77340, Dec. 31, 1979, as amended at 50 FR 13382, Apr. 4, 1985]

§215.105 Defective axle.

A railroad may not place or continue in service a car, if—

(a) An axle on the car has a crack or is broken;

(b) An axle on the car has a gouge in the surface that is—

(1) Between the wheel seats; and

(2) More than one-eighth inch in depth;

(c) An axle on the car, used in conjunction with a plain bearing, has an end collar that is broken or cracked;

(d) A journal on the car shows evidence of overheating, as evidenced by a pronounced blue black discoloration; or

(e) The surface of the plain bearing journal on the axle, or the fillet on the axle, has—

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(1) A ridge;

(2) A depression;

(3) A circumferential score;

(4) Corrugation;

(5) A scratch;

(6) A continuous streak;

(7) Pitting;

(8) Rust; or

(9) Etching.

§215.107 Defective plain bearing box: General.

A railroad may not place or continue in service a car, if the car has—

(a) A plain bearing box that does not contain visible free oil;

(b) A plain bearing box lid that is missing, broken, or open except to receive servicing; or

(c) A plain bearing box containing foreign matter, such as dirt, sand, or coal dust, that can reasonably be expected to—

(1) Damage the bearing; or

(2) Have a detrimental effect on the lubrication of the journal and the bearings.

§215.109 Defective plain bearing box: Journal lubrication system.

A railroad may not place or continue in service a car, if the car has a plain bearing box with a lubricating pad that—

(a) Has a tear extending half the length or width of the pad, or more;

(b) Shows evidence of having been scorched, burned, or glazed;

(c) Contains decaying or deteriorated fabric that impairs proper lubrication of the pad;

(d) Has—

(1) An exposed center core (except by design); or

(2) Metal parts contacting the journal; or

(e) Is—

(1) Missing; or

(2) Not in contact with the journal.

§215.111 Defective plain bearing.

A railroad may not place or continue in service a car, if the car has a plain bearing—

(a) That is missing, cracked, or broken;

(b) On which the bearing liner—

(1) Is loose; or

(2) Has a broken out piece; or

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(c) That shows signs of having been overheated, as evidenced by—

- (1) Melted babbitt;
- (2) Smoke from hot oil; or
- (3) Journal surface damage.

§215.113 Defective plain bearing wedge.

A railroad may not place or continue in service a car, if a plain bearing wedge on that car is—

- (a) Missing;
- (b) Cracked;
- (c) Broken; or
- (d) Not located in its design position.

§215.115 Defective roller bearing.

(a) A railroad may not place or continue in service a car, if the car has—

(1) A roller bearing that shows signs of having been overheated as evidenced by—

- (i) Discoloration; or
 - (ii) Other telltale signs of overheating such as damage to the seal or distortion of any bearing component;
- (2) A roller bearing with a—
- (i) Loose or missing cap screw; or
 - (ii) Broken, missing, or improperly applied cap screw lock; or
- (3) A roller bearing with a seal that is loose or damaged, or permits leakage of lubricant in clearly formed droplets.

(b)(1) A railroad may not continue in service a car that has a roller bearing whose truck was involved in a derailment unless the bearing has been inspected and tested by:

- (i) Visual examination to determine whether it shows any sign of damage; and
- (ii) Spinning freely its wheel set or manually rotating the bearing to determine whether the bearing makes any unusual noise.

(2) The roller bearing shall be disassembled from the axle and inspected internally if—

(i) It shows any external sign of damage;

(ii) It makes any unusual noise when its wheel set is spun freely or the bearing is manually rotated;

(iii) Its truck was involved in a derailment at a speed of more than 10 miles per hour; or

(iv) Its truck was dragged on the ground for more than 200 feet.

(3) Each defective roller bearing shall be repaired or replaced before the car is placed back in service.

[44 FR 77340, Dec. 31, 1979, as amended at 45 FR 26711, Apr. 21, 1980]

§215.117 Defective roller bearing adapter.

A railroad may not place or continue in service a car, if the car has a roller bearing adapter that is—

- (a) Cracked or broken;
- (b) Not in its design position; or
- (c) Worn on the crown of the adapter to the extent that the frame bears on the relief portion of the adapter, as shown in the figure below (see figure 1).

§215.119 Defective freight car truck.

A railroad may not place or continue in service a car, if the car has—

- (a) A side frame or bolster that—
 - (1) Is broken; or
 - (2) Has a crack of ¼ of an inch or more in the transverse direction on a tension member;
- (b) A truck equipped with a snubbing device that is ineffective, as evidenced by—
 - (1) A snubbing friction element that is worn beyond a wear indicator;
 - (2) A snubber wear plate that is loose, missing (except by design), or worn through;
 - (3) A broken or missing snubber activating spring; or