

§ 230.98

(b) *Maintenance.* Crank pin collars and collar fasteners shall be maintained in a safe and suitable condition for service.

RUNNING GEAR

§ 230.98 Driving, trailing, and engine truck axles.

(a) *Condemning defects.* Driving, trailing, and engine truck axles with any of the following defects shall be removed from service immediately and repaired (see appendix A of this part for inspection requirements):

- (1) Bent axle;
- (2) Cut journals that cannot be made to run cool without turning;
- (3) Transverse seams in iron or steel axles;

(4) Seams in axles causing journals to run hot;

(5) Axles that are unsafe on account of usage, accident or derailment;

(6) Any axle worn ½ inch or more in diameter below the original/new journal diameter, except as provided in paragraph (a)(7) of this section;

(7) Any driving axles other than main driving axles with an original or new diameter greater than 6 inches that are worn ¾ inch or more in diameter below the original/new diameter.

(b) *Journal diameter stamped.* For steam locomotives with plain bearings, the original/new journal diameter shall be stamped on one end of the axle no later than January 18, 2005.

§ 230.99 Tender truck axles.

The minimum diameters of axles for various axle loads shall be as follows:

| Axle load (in pounds) | Minimum diameter of journal (in inches) | Minimum diameter of wheel seat (in inches) | Minimum diameter of center (in inches) |
|-----------------------|---|--|--|
| 50000 | 5½ | 7¾ | 6⅞ |
| 38000 | 5 | 6¾ | 5⅞ |
| 31000 | 4½ | 6¼ | 5⅝ |
| 22000 | 3¾ | 5 | 4¾ |
| 15000 | 3¼ | 4⅝ | 3¾ |

§ 230.100 Defects in tender truck axles and journals.

(a) *Tender truck axle condemning defects.* Tender truck axles with any of the following defects shall be removed from service immediately and repaired:

- (1) Axles that are bent;
- (2) Collars that are broken, cracked, or worn to ¼ inch or less in thickness;
- (3) Truck axles that are unsafe on account of usage, accident, or derailment;
- (4) A fillet in the back shoulder that is worn out; or
- (5) A gouge between the wheel seats that is more than ⅛ of an inch in depth.

(b) *Tender truck journal condemning defects.* Tender truck journals with any of the following defects shall be removed from service immediately and repaired:

- (1) Cut journals that cannot be made to run cool without turning;

(2) Seams in axles causing journals to run hot;

(3) Overheating, as evidenced by pronounced blue black discoloration;

(4) Transverse seams in journals of iron or steel axles; or

(5) Journal surfaces having any of the following:

- (i) A circumferential score;
- (ii) Corrugation;
- (iii) Pitting;
- (iv) Rust;
- (v) Etching.

§ 230.101 Steam locomotive driving journal boxes.

(a) *Driving journal boxes.* Driving journal boxes shall be maintained in a safe and suitable condition for service. Not more than one shim may be used between the box and bearing.

(b) *Broken bearings.* Broken bearings shall be renewed.