§ 238.427 Suspension system.

(a) General requirements. (1) Suspension systems shall be designed to reasonably prevent wheel climb, wheel unloading, rail rollover, rail shift, and a vehicle from overturning to ensure safe, stable performance and ride quality. These requirements shall be met:

(i) In all operating environments, and under all track conditions and loading conditions as determined by the operating railroad; and

(ii) At all track speeds and over all track qualities consistent with the Track Safety Standards in part 213 of this chapter, up to the maximum operating speed and maximum cant deficiency of the equipment.

(2) All passenger equipment shall meet the safety performance standards for suspension systems contained in part 213 of this chapter, or alternative standards providing at least equivalent safety if approved by FRA under the provisions of §238.21. In particular—

(i) Pre-revenue service qualification. All passenger equipment shall demonstrate safe operation during pre-revenue service qualification in accordance with §213.345 of this chapter and is subject to the requirements of §213.329 of this chapter.

(ii) Revenue service operation. All passenger equipment in service is subject to the requirements of §§213.329 and 213.333 of this chapter.

(b) Carbody acceleration. A passenger car shall not operate under conditions that result in a steady-state lateral acceleration greater than 0.15g, as measured parallel to the car floor inside the passenger compartment. Additional carbody acceleration limits are specified in §213.333 of this chapter.

(c) Truck (hunting) acceleration. Each truck shall be equipped with a permanently installed lateral accelerometer mounted on the truck frame. If truck hunting is detected, the train monitoring system shall provide an alarm to the locomotive engineer, and the train shall be slowed to a speed at least 5 mph less than the speed at which the...
truck hunting stopped. Truck hunting is defined in §213.333 of this chapter.


§ 238.428 Overheat sensors.

Overheat sensors for each wheelset journal bearing shall be provided. The sensors may be placed either onboard

1 A penalty may be assessed against an individual only for a willful violation. Generally when two or more violations of these regulations are discovered with respect to a single unit of passenger equipment that is placed or continued in service by a railroad, the appropriate penalties set forth above are aggregated up to a maximum of $16,000 per day. However, failure to perform, with respect to a particular unit of passenger equipment, any of the inspections and tests required under subparts D and F of this part will be treated as a violation separate and distinct from, and in addition to, any substantive violative conditions found on that unit of passenger equipment. Moreover, the Administrator reserves the right to assess a penalty of up to $105,000 for any violation where circumstances warrant. See 49 CFR part 209, appendix A.

Failure to observe any condition for movement of defective equipment set forth in §238.17 will deprive the railroad of the benefit of the movement-for-repair provision and make the railroad and any responsible individual liable for penalty under the particular regulatory section(s) concerning the substantive defect(s) present on the unit of passenger equipment at the time of movement.

Failure to observe any condition for the movement of passenger equipment containing defective safety appliances, other than power brakes, set forth in §238.17(e) will deprive the railroad of the movement-for-repair provision and make the railroad and any responsible individuals liable for penalty under the particular regulatory section(s) concerning the substantive defect(s) present on the unit of passenger equipment contained in a train that is not properly inspected. Whereas, the penalties listed for failure to perform the brake inspections and tests under §238.313 through §238.319 may be assessed for each train that is not properly inspected.

2 The penalty schedule uses section numbers from 49 CFR part 238. If more than one item is listed as a type of violation of a given section, each item is also designated by a “penalty code,” which is used to facilitate assessment of civil penalties, and which may or may not correspond to any subsection designation(s). For convenience, penalty citations will cite the CFR section and the penalty code, if any. FRA reserves the right, should litigation become necessary, to substitute in its complaint the CFR citation in place of the combined CFR and penalty code citation, should they differ.