

THE NEW YORK AIR BRAKE

(PART 3)

EXAMINATION QUESTIONS

(1) How should a terminal test of a train be made? Explain fully. ART. 9.

(2) (a) If a blow occurs at the vent ports \mathcal{Y} or M of a quick-action triple, to what may it be due? (b) How do you tell whether it is a leak from the train pipe or from the auxiliary? (a) and (b) ART. 13.

(3) Explain how defects in the air-brake system can be located by means of the temperature test. ART. 17.

(4) Within what limits should the piston travel be maintained on: (a) a passenger car? (b) a freight car? (a) and (b) ART. 32.

(5) Where are leaks liable to occur in: (a) the train pipe and branch pipes? (b) the hose and couplings? (c) the auxiliary reservoir? (d) the brake cylinder? (a), (b), (c), and (d) ART. 13.

(6) If it were necessary to use the hand-brakes in conjunction with the air brakes, would you use those at the rear end of the train? Give your reasons. ART. 18.

(7) How would you proceed to set out a car at a way station? ART. 19.

(8) How would you locate a triple that set its brake "quick action" when a service reduction was made? ART. 25.

(9) Suppose that in the same train there are two cars having brake-piston travels of 4 and 10 inches, respectively: (a) At what pressures would they equalize? (b) Which would equalize first? (c) Which would release first? (a), (b), and (c) ART. 30.

(10) How should a part-air train be made up? ART. 8.

(11) How can you determine the condition of the triple-piston packing ring without taking the triple down? Explain fully. ART. 12.

(12) (a) How can the condition of the brakes be ascertained by means of the temperature of the car wheels? (b) How can the defects be located by means of the temperature test? (a) ART. 16; (b) ART. 17.

(13) When, and when only, should a car brake be cut out of service on the road? ART. 14.

(14) Suppose the brake-piston travel on three cars to be 4, 8, and 10 inches, respectively, what will be the pressure in the three brake cylinders if a train-pipe reduction of 16 pounds is made? ART. 30.

(15) What is the greatest allowable pressure on the brake shoes of: (a) passenger cars? (b) freight cars? (a) and (b) ART. 46.

(16) In the event of a hose bursting, what should be done? ART. 21.

(17) Does the length of the train pipe have any effect on the way the train "handles," and, if so, what? ART. 6.

(18) If, in making a terminal test, a brake were found that would not release: (a) where would you look for the cause? (b) what would you do? (a) and (b) ART. 12.

(19) How should the trainmen proceed in the event of the train breaking in two? ART. 23.

(20) If hose couplings are found frozen over with a coating of ice, how should the ice be removed so as not to damage the couplings? ART. 13.

(21) Explain how you would cut a car brake out of service. ART. 14.

(22) If, in making a terminal test, a brake were found that will not stay on: (a) where would you look for the cause? and (b) what would you do? (a) and (b) ART. 11.

(23) Explain how "slack" affects the smooth handling of a train. ART. 3.

(24) When and how should the conductor's valve be used? ART. 28.

(25) How would you "bleed off" a brake? ART. 22.

(26) Explain, fully, how to adjust the brakes on a car. ART. 34.

(27) What causes wheels to slide? ART. 27.

(28) If, in making a terminal test, a brake were found that will not apply, what would you do? ART. 10.

(29) If the brake-piston travel is not uniform throughout the train, being, say, 4 inches on some cars and 10 inches on the others, will this interfere with the smooth handling of the train? Explain. ART. 5.

(30) How would you measure the piston travel on a freight car? ART. 33.

(31) Explain how you would cut a car out. ART. 15.