

The indicator lamp shall be deactivated at the end of the check of lamp function unless there is a malfunction or a message about a malfunction that existed when the key switch was last turned to the "off" position.

(b) Each truck tractor manufactured on or after March 1, 1997, and each single unit vehicle manufactured on or after March 1, 1998 that is equipped to tow another air-braked vehicle, shall be equipped with an electrical circuit that is capable of transmitting a malfunction signal from the antilock brake system(s) on one or more towed vehicle(s) (e.g., trailer(s) and dolly(ies)) to the trailer ABS malfunction lamp in the cab of the towing vehicle, and shall have the means for connection of this electrical circuit to the towed vehicle. Each such truck tractor and single unit vehicle shall also be equipped with an indicator lamp, separate from the lamp required in S5.1.6.2(a), mounted in front of and in clear view of the driver, which is activated whenever the malfunction signal circuit described above receives a signal indicating an ABS malfunction on one or more towed vehicle(s). The indicator lamp shall remain activated as long as an ABS malfunction signal from one or more towed vehicle(s) is present, whenever the ignition (start) switch is in the "on" (run) position, whether or not the engine is running. The indicator lamp shall also be activated as a check of lamp function whenever the ignition is turned to the "on" or "run" position. The indicator lamp shall be deactivated at the end of the check of lamp function unless a trailer ABS malfunction signal is present.

(c) [Reserved]

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S5.2.3.2 Antilock Malfunction Signal. Each trailer (including a trailer converter dolly) manufactured on or after March 1, 1998 that is equipped with an antilock brake system shall be equipped with an electrical circuit that is capable of signalling a malfunction in the trailer's antilock brake system, and shall have the means for connection of this antilock brake system malfunction signal circuit to the towing vehicle. The electrical circuit need not be separate or dedicated exclusively to this malfunction signaling function. The signal shall be present whenever there is a malfunction that affects the generation or transmission of response or control signals in the trailer's antilock brake system. The signal shall remain present as long as the malfunction exists, whenever power is supplied to the antilock brake system. Each message about the existence of such a malfunction shall be stored in the

antilock brake system whenever power is no longer supplied to the system, and the malfunction signal shall be automatically reactivated whenever power is again supplied to the trailer's antilock brake system. In addition, each trailer manufactured on or after March 1, 1998, that is designed to tow another air-brake equipped trailer shall be capable of transmitting a malfunction signal from the antilock brake system(s) of additional trailers in a combination by means of its ABS malfunction signal circuit, and shall have the means for connection of its ABS malfunction signal circuit to the towed vehicle.

S5.2.3.3 Antilock Malfunction Indicator. In addition to the requirements of S5.2.3.2, each trailer (including a trailer converter dolly) manufactured on or after March 1, 1998 and before March 1, 2006, shall be equipped with an external indicator lamp that is activated whenever there is a malfunction that affects the generation or transmission of response or control signals in the trailer's antilock brake system. The indicator lamp shall remain activated as long as such a malfunction exists, whenever power is supplied to the antilock brake system. Each message about the existence of such a malfunction shall be stored in the antilock brake system whenever power is no longer supplied to the system, and the malfunction signal shall be automatically reactivated when power is again supplied to the trailer's antilock brake system. The indicator lamp shall also be activated as a check of lamp function whenever power is supplied to the antilock brake system and the vehicle is stationary. The indicator lamp shall be deactivated at the end of the check of lamp function unless there is a malfunction or a message about a malfunction that existed when power was last supplied to the antilock brake system.

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S5.3.1 Stopping distance—trucks and buses. When stopped six times for each combination of vehicle type, weight, and speed specified in S5.3.1.1, in the sequence specified in Table I, each truck tractor manufactured on or after March 1, 1997 and each single unit vehicle manufactured on or after March 1, 1998 shall stop at least once in not more than the distance specified in Table II, measured from the point at which movement of the service brake control begins, without any part of the vehicle leaving the roadway, and with wheel lockup permitted only as follows:

(a) At vehicle speeds above 20 mph, any wheel on a nonsteerable axle other than the two rearmost nonliftable,

nonsteerable axles may lock up, for any duration. The wheels on the two rearmost nonliftable, nonsteerable axles may lock up according to (b).

(b) At vehicle speeds above 20 mph, one wheel on any axle or two wheels on any tandem may lock up for any duration.

(c) At vehicle speeds above 20 mph, any wheel not permitted to lock in (a) or (b) may lock up repeatedly, with each lockup occurring for a duration of one second or less.

(d) At vehicle speeds of 20 mph or less, any wheel may lock up for any duration.

Table I.—Stopping Sequence

1. Burnish.
 2. Stops on a peak friction coefficient surface of 0.5: (a) With the vehicle at gross vehicle weight rating (GVWR), stop the vehicle from 30 mph using the service brake, for a truck tractor with a loaded unbraked control trailer. (b) With the vehicle at unloaded weight plus up to 500 lbs., stop the vehicle from 30 mph using the service brake, for a truck tractor.
 3. Manual adjustment of the service brakes allowed for truck tractors, within the limits recommended by the vehicle manufacturer.
 4. Other stops with vehicle at GVWR:
 - (a) 60 mph service brake stops on a peak friction coefficient surface of 0.9, for a truck tractor with a loaded unbraked control trailer, or for a single-unit vehicle.
 - (b) 60 mph emergency brake stops on a peak friction coefficient of 0.9, for a single-unit vehicle. Truck tractors are not required to be tested in the loaded condition.
 5. Parking brake test with the vehicle loaded to GVWR.
 6. Manual adjustment of the service brakes allowed for truck tractors and single-unit vehicles, within the limits recommended by the vehicle manufacturer.
 7. Other stops with the vehicle at unloaded weight plus up to 500 lbs.
 - (a) 60 mph service brake stops on a peak friction coefficient surface of 0.9, for a truck tractor or for a single-unit vehicle.
 - (b) 60 mph emergency brake stops on a peak friction coefficient of 0.9, for a truck tractor or for a single-unit vehicle.
 8. Parking brake test with the vehicle at unloaded weight plus up to 500 lbs.
 9. Final inspection of service brake system for condition of adjustment.
- S5.3.6 Stability and Control During Braking-Truck Tractors.** When stopped four consecutive times for each combination of weight, speed, and road conditions specified in S5.3.6.1 and