

shall, upon summary conviction before a magistrate, be sentenced to pay a fine of fifty dollars (\$50.00) and costs of prosecution, and, in default of the payment thereof, shall undergo imprisonment for not more than ten (10) days.

Section 3. Subsection (c.1) of section 905 of the act, added July 17, 1963 (P. L. 262), is amended to read:

Section 905. Permits for Excessive Size and Weight.—

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(c.1) The Secretary of Highways may, in his discretion, issue special permits in writing for any fixed number of movements of vehicles or tractors, or combination thereof, exceeding the maximum widths or lengths, or both, specified in this act, between specified locations along certain highways, transporting boats or mobilehomes or helicopters while such boats or mobilehomes are in the course of manufacture or while such helicopters are in the course of manufacture for use by the government of the United States of America, and only on highways located entirely within the county in which the boats or mobilehomes or helicopters are manufactured and while they are entirely within the control of the manufacturer. The foregoing provisions of this subsection do not authorize the Secretary of Highways to issue a permit for the movement of transporting such boats or mobilehomes or helicopters upon the Pennsylvania Turnpike or the National System of Interstate and Defense Highways.

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APPROVED—The 24th day of January, A. D. 1966.

WILLIAM W. SCRANTON

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No. 526

AN ACT

HB 1346

Amending the act of April 29, 1959 (P. L. 58), entitled "An act consolidating and revising the Vehicle Code, the Tractor Code, the Motor Vehicle Financial Responsibility Act and other acts relating to the ownership, possession and use of vehicles and tractors," defining "combination," changing brake equipment requirements, and prescribing brake performance requirements.

The General Assembly of the Commonwealth of Pennsylvania hereby enacts as follows:

Section 1. Section 102, act of April 29, 1959 (P. L. 58), known as "The Vehicle Code," is amended by adding, after the definition of "Cleat," a new definition to read:

Section 102. Definitions.—The following words and phrases when used in this act shall, for the purpose of this act, have the following meanings, respectively, except in those instances where the context clearly indicates a different meaning:

\* \* \*

"Combination."—Two or more vehicles, physically interconnected in tandem, and propelled by the foremost vehicle when operated on a highway.

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Section 2. Section 816 of the act, amended April 2, 1963 (P. L. 13), is amended to read:

Section 816. [Brakes] Brake Equipment.—

[(a) Every vehicle and tractor using the highways of this Commonwealth, except trailers and semi-trailers having chassis and body weights of less than one thousand (1000) pounds, shall be equipped with brakes adequate to control the movement of, and to stop and to hold such vehicle or tractor. Brakes shall be capable of stopping the vehicle and its load, if any, traveling at a speed of twenty (20) miles per hour upon a dry, hard, approximately level stretch of highway, free from loose material, where the grade does not exceed one (1) percent, within the following distances: Namely, fifty-five (55) feet for emergency brakes, forty (40) feet for service brakes effective upon less than all wheels, and thirty (30) feet for service brakes effective upon all wheels. Brakes shall be maintained in good working order and so adjusted upon vehicles, other than motorcycles and bicycles with motors attached, as to operate as equally as practicable with respect to the wheels on opposite sides of the vehicles. Emergency brakes shall be adequate to hold such vehicle or vehicles stationary upon any grade upon which operated.

(b) Every motor vehicle using the highways of this Commonwealth, except motorcycles and bicycles with motors attached, shall be equipped with two (2) separate means of applying the brakes so constructed that failure of any one (1) part of the operating mechanism shall not leave the motor vehicle without operative brakes on at least two (2) wheels, or at least one (1) wheel if the vehicle was constructed with three (3) wheels. One such means shall be an emergency brake employing a

ratchet and pawl, or other suitable locking and releasing mechanism, effective to lock at least two (2) rear wheels on opposite sides of the vehicle, or the one (1) rear wheel if the vehicle was constructed with a single load carrying wheel in the rear. The other such means shall be a service brake effective upon all wheels of every such motor vehicle sold new in this Commonwealth on or after January 1, 1956, and upon at least two (2) wheels of every other such motor vehicle.

(c) Every motorcycle and bicycle with motor attached, using the highways of this Commonwealth, shall be provided with at least one (1) brake which may be operated by hand or foot.

(d) Every combination of a commercial motor vehicle and trailer, or truck tractor and semi-trailer, when operated upon a highway, shall be equipped with brakes so designed as to be applied upon both vehicles by the driver of the towing motor vehicle from its cab. The brakes shall be so designed and connected that, in case of an accidental break-away of the towed vehicle, the brakes thereof shall be automatically applied, and stop and hold such vehicle for at least fifteen (15) minutes.

(e) Every commercial motor vehicle and every combination of a commercial motor vehicle and trailer, or of a truck tractor and semi-trailer, when used on a public highway, shall be equipped with service brakes having an aggregate friction lining surface of not less than one (1) square inch for each fifty-five (55) pounds of maximum gross weight allowed by this act, and of a type designed for a maximum of one hundred twenty (120) degrees and a minimum of ninety (90) degrees friction surface per brake shoe. This subsection shall apply only to drum and shoe type brakes.]

(a) Every vehicle, combination and tractor, when operated upon a highway, shall have brake equipment which is designed, constructed and maintained to meet the requirements prescribed by this section.

(b) Every motor vehicle except a motorcycle, every combination and every tractor shall be equipped with a parking brake system adequate to hold such vehicle, combination or tractor on any grade on which it is operated, under all conditions of loading, on a surface free of ice or snow. The energy source for application of the parking brake may be the muscular effort of the operator, or the action of springs or electricity, or an accumulation of air or vacuum which cannot be used for any purpose other than parking brake application. The parking brake, once applied, shall remain in applied condition with full effective-

ness regardless of reduction or exhaustion of the energy used in its application, and shall not be capable of being released unless energy is immediately available to make another application with full effectiveness.

(c) Every motor vehicle, combination and tractor shall be equipped with a service brake system adequate to control the movement of and to stop and hold such vehicle or combination on any grade on which it is operated, under all conditions of loading; and to meet the brake performance requirements of section 816-A.

(d) The service brake system shall act upon all wheels of every motor vehicle and combination except that such system shall not be required to act upon:

(1) A trailer or semi-trailer which, when standing alone, has a gross weight not exceeding three thousand (3,000) pounds, and which, when coupled to its towing vehicle, has a gross weight not exceeding forty percent (40%) of the gross weight of such towing vehicle;

(2) A vehicle being towed in a driveway or towaway operation;

(3) The wheels on one steerable axle of a commercial motor vehicle or truck tractor having three or more axles;

(4) The wheels of a motorcycle simultaneously or the wheel of a sidecar coupled to a motorcycle at any time.

(e) Every trailer and semi-trailer, except mobile homes and house trailers, manufactured or assembled after May 31, 1966, which is equipped with an air or vacuum brake system or which has a gross weight exceeding three thousand (3,000) pounds, shall be equipped with brakes acting upon all wheels and of such character as to be applied automatically and promptly and remain applied for at least fifteen (15) minutes, upon breakaway from its towing vehicle.

(f) Every motor vehicle, manufactured or assembled after May 31, 1966, which is used to tow a trailer or semi-trailer having a brake system, shall be capable of being stopped by the use of its own service brakes, upon breakaway of its towed vehicle.

(g) After May 31, 1966, every motor vehicle, when used to tow a

trailer or semi-trailer having an air brake system, shall be equipped with two means for emergency application of the towed vehicle's brakes. One such means shall apply the towed vehicle's brakes automatically in the event of a reduction of the towing vehicle's air supply to a fixed minimum pressure, which shall be not lower than twenty (20) pounds per square inch nor more than forty-five (45) pounds per square inch. The other such means shall apply and release the towed vehicle's brakes by the manual control of the operator of the towing vehicle, and the emergency position or method of operation of the control device shall be clearly indicated. The manual means shall be such that it cannot be used to prevent operation of the automatic means. The automatic and manual means required by this subsection may be, but are not required to be, separate.

(h) After May 31, 1966, every motor vehicle, when used to tow a trailer or semi-trailer having a vacuum brake system, shall have the single control device prescribed by subsection (m) and, in addition, a second means for emergency application of the towed vehicle's brakes. Such second means shall be independent of brake air, hydraulic, and other pressure, and independent of other controls, unless the towed vehicle's braking system be so arranged that failure of the pressure actuating the second control will cause the towed vehicle's brakes to be applied automatically. The second control may, but is not required to, provide modulated braking.

(i) Every motor bus, commercial vehicle and truck tractor having an air brake system, and every commercial motor vehicle and truck tractor when used to tow a trailer or semi-trailer having an air brake system, shall be equipped with at least one air reservoir sufficient to insure that, when fully charged to the maximum pressure as regulated by the air compressor governor cut-out setting, a full service brake application can be made without depleting the reservoir pressure by more than twenty percent (20%). Every such motor bus, commercial motor vehicle and truck tractor shall have a gauge, visible to the operator, showing

at all times the reservoir pressure and, in addition, a device giving audible or visible warning to the operator whenever the reservoir pressure falls below fifty percent (50%) of the air compressor governor cut-out pressure.

(j) After May 31, 1966, every commercial motor vehicle with three or more axles having a vacuum or vacuum-assisted brake system, and every commercial motor vehicle and truck tractor when used to tow a trailer or semi-trailer having a vacuum brake system, shall be equipped with at least one reservoir or reserve capacity sufficient to insure that, with the reservoir or reserve capacity fully charged and with the engine stopped, a full service brake application can be made without depleting the vacuum supply by more than forty percent (40%). After said date, every such commercial motor vehicle and truck tractor shall have a gauge, visible to the operator, showing at all times the reservoir or reserve capacity vacuum and, in addition, a device giving audible or visible warning to the operator whenever the reservoir or reserve capacity vacuum falls below eight (8) inches of mercury.

(k) Every reservoir or reserve capacity from which air or vacuum is supplied, without further storage, to the service brakes of any motor vehicle, trailer, semi-trailer or combination shall be equipped with a check valve or equivalent device at or immediately adjoining the intake side thereof, to prevent backflow of air or vacuum from such reservoir or reserve capacity.

(l) The devices giving audible or visible warnings, required by <sup>1</sup>subsections (i) and (j), may be combined into a single device on any vehicle to which such requirements of both such subsections apply.

(m) After May 31, 1966, every motor vehicle except a motorcycle, and every trailer, semi-trailer and combination, shall be so equipped that all of the service brakes required by this section can be applied and released simultaneously by a single control device. This subsection

<sup>1</sup> "subsection" in original.

shall not be construed to prohibit, or to waive any other requirement of this section for, additional service brake controls.

(n) Service brakes of the drum or shoe type of any commercial motor vehicle, combination of a commercial motor vehicle and trailer, or combination of a truck tractor and semi-trailer, shall have an aggregate friction lining surface of not less than one (1) square inch for each fifty-five (55) pounds of maximum gross weight allowed by this act, and of a type designed for a maximum of one hundred twenty (120) degrees and a minimum of ninety (90) degrees friction surface per brake shoe.

(o) Any vehicle, combination, or tractor, having the brake equipment prescribed by this section may but need not be equipped with such additional brake equipment, including but not limited to retarders and front wheel brake effort adjusters, as shall have been approved by the secretary.

(p) Nothing in this section shall apply to any mechanism or apparatus, mounted on wheels, which is not designed for, and is not in fact used for, the transportation of passengers or loads upon a highway, and is operated upon a highway solely for the purpose of being moved to or from a site at which the mechanism or apparatus performs its function.

(q) Mobile homes and house trailers shall be equipped with brakes so designed as to be applied upon both vehicles by the driver of the towing motor vehicle from its cab. The brakes shall be so designed and connected that, in case of an accidental breakaway of the towed vehicle, the brakes thereof shall be automatically applied, and stop and hold such towed vehicle for at least fifteen (15) minutes.

(r) Every motor vehicle of a passenger car or suburban type, registered in this Commonwealth and manufactured or assembled after June 30, 1967, and designated as a 1968 or later model, shall be equipped with a service brake system of such design that rupture or failure of an actuating force component of any single brake shall not result in complete loss of braking function. The braking function may be ob-

tained by hydraulic or other means through the normal service brake mechanism.

“Actuating force component” as used in this clause shall mean the brake master cylinder, brake actuating cylinder, brake line, brake hose, or similar components performing like functions if the brake systems are other than hydraulic.

In the event of rupture or failure of an actuating force component, the unaffected brakes shall be capable of applying an adequate braking force to the vehicle.

Penalty.—Any person violating any of the provisions of this section, shall, upon summary conviction before a magistrate, be sentenced to pay a fine of twenty-five dollars (\$25.00) and costs of prosecution, and, in default of the payment thereof, shall undergo imprisonment for not more than five (5) days.

Section 3. Article VIII. of the act is amended by adding, after section 816, a new section to read:

Section 816-A. Brake Performance.—

(a) “Deceleration rate,” for the purpose of this section, means the rate, measured in feet per second, at which a vehicle is brought from a speed of twenty (20) miles per hour to a stop on a hard, dry, smooth surface, free of loose materials, of not more than one percent (1%) grade.

(b) “Stopping distance,” for the purpose of this section, means the distance, measured in feet, within which a vehicle is brought from a speed of twenty (20) miles per hour to a stop on a hard, dry, smooth surface, free of loose materials, of not more than one percent (1%) grade. For the purpose of the maximum stopping distance prescribed in this section, stopping distance shall be measured from the point at which movement of the service brake pedal or other control begins.

(c) “Braking force,” for the purpose of this section, means the force, measured in pounds, determined by multiplying (1) the maximum gross weight allowed in this act for a vehicle or combination by (2) the braking force percentage prescribed in this section.



(d) Every motorcycle, passenger motor vehicle, motor bus, motor omnibus, and school bus as defined in section 840 of this act, when operated upon a highway without having a trailer or semi-trailer attached thereto, shall have a service brake system which either (1) decelerates such vehicle at not less than the minimum deceleration rate prescribed therefor in the following table, or (2) stops such vehicle in not more than the maximum stopping distance prescribed therefor in the following table:

<u>Type of Vehicle</u>	<u>Minimum</u>	<u>Maximum</u>
	<u>Deceleration</u> <u>Rate in Feet</u> <u>Per Second</u>	<u>Stopping</u> <u>Distance</u> <u>in Feet</u>
<u>Vehicle, other than a motorcycle, with seating capacity for less than ten (10) persons</u>	<u>17</u>	<u>25</u>
<u>Vehicle with seating capacity for ten (10) or more persons</u>	<u>14</u>	<u>40</u>
<u>Motorcycle, with or without sidecar</u>	<u>14</u>	<u>30</u>

(e) Every commercial motor vehicle except a school bus defined in section 840 of this act, every truck tractor, and every combination, when operated upon a highway, shall have a service brake system which either (1) decelerates such vehicle or combination at not less than the minimum deceleration rate prescribed therefor in the following table, or (2) stops such vehicle or combination in not more than the maximum stopping distance prescribed therefor in the following table, or (3) has a braking force not less than the minimum braking force prescribed<sup>1</sup> therefor in the following table:

<sup>1</sup> "therefore" in original.

<u>Type of Vehicle</u> <u>or Combination</u>	<u>Minimum</u>	<u>Minimum</u>	<u>Minimum</u>
	<u>Deceleration</u>	<u>Maximum</u>	<u>Braking Force</u>
	<u>Rate in Feet</u>	<u>Stopping</u>	<u>as Percentage</u>
	<u>Per Second</u>	<u>Distance</u>	<u>of Maximum</u>
	<u>Per Second</u>	<u>In Feet</u>	<u>Gross Weight</u>
			<u>Allowed</u>
<u>Commercial motor vehicle or truck</u>			
<u>tractor, maximum gross weight</u>			
<u>less than 11,000 pounds</u>	<u>14</u>	<u>30</u>	<u>43.5</u>
<u>Commercial motor vehicle or truck</u>			
<u>tractor, maximum gross weight</u>			
<u>11,000 pounds or more; com-</u>			
<u>bination in which maximum</u>			
<u>gross weight of trailer or semi-</u>			
<u>trailer is not more than 3,000</u>			
<u>pounds; combination in drive-</u>			
<u>away or towaway operation</u>	<u>14</u>	<u>40</u>	<u>43.5</u>
<u>Any other vehicle or combination</u>	<u>14</u>	<u>50</u>	<u>43.5</u>

Penalty.—Any person violating any of the provisions of this section, shall, upon summary conviction before a magistrate, be sentenced to pay a fine of twenty-five dollars (\$25.00) and costs of prosecution, and, in default of the payment thereof, shall undergo imprisonment for not more than five (5) days.

APPROVED—The 24th day of January, A. D. 1966.

WILLIAM W. SCRANTON

No. 527

AN ACT

HB 1640

Amending the act of April 29, 1959 (P. L. 58), entitled "An act consolidating and revising the Vehicle Code, the Tractor Code, the Motor Vehicle Financial Responsibility Act and other acts relating to the ownership, possession and use of vehicles and tractors," further providing for the suspension of operators' licenses and