

North Carolina:

<http://unlimitedawnings.com/mstp.pdf> - PowerPoint on Rules for Motor Sports Transportation presented by state police and other officials.

NC Laws Relating to Commercial Vehicles

Link: <https://connect.ncdot.gov/business/trucking/Documents/North%20Carolina%20Law%20-%20Commercial%20Vehicles.pdf>

Excerpts:

§ 20-115.1. Limitations on tandem trailers and semitrailers on certain North Carolina highways.

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(b) Motor vehicle combinations consisting of a semitrailer of not more than 53 feet in length and a truck tractor may be operated on all primary highway routes of North Carolina provided the motor vehicle combination meets the requirements of this subsection. The Department may, at any time, prohibit motor vehicle combinations on portions of any route on the State highway system. If the Department prohibits a motor vehicle combination on any route, it shall submit a written report to the Joint Legislative Transportation Oversight Committee within six months of the prohibition clearly documenting through traffic engineering studies that the operation of a motor vehicle combination on that route cannot be safely accommodated and that the route does not have sufficient capacity to handle the vehicle combination. To operate on a primary highway route, a motor vehicle combination described in this subsection must meet all of the following requirements:

(1) The motor vehicle combination must comply with the weight requirements in G.S. 20-118.

(2) A semitrailer in excess of 48 feet in length must meet one or more of the following conditions:

(a) The distance between the kingpin of the trailer and the rearmost axle, or a point midway between the two rear axles, if the two rear axles are a tandem axle, does not exceed 41 feet.

(b) The semitrailer is used exclusively or primarily to transport vehicles in connection with motorsports competition events, and the distance between the kingpin of the trailer and the rearmost axle, or a point midway between the two rear axles, if the two rear axles are a tandem axle, does not exceed 46 feet. Rev. 3/2/10 6

(3) A semitrailer in excess of 48 feet must be equipped with a rear underride guard of substantial construction consisting of a continuous lateral beam extending to within four inches of the lateral extremities of the semitrailer and located not more than 30 inches from the surface as measured with the vehicle empty and on a level surface.

§ 20-116. Size of vehicles and loads.

http://www.ncga.state.nc.us/enactedlegislation/statutes/html/bysection/chapter_20/gs_20-116.html

. . .

(n) Vehicle combinations used in connection with motorsports competition events that include a cab or other motorized vehicle unit with living quarters, and an attached enclosed specialty trailer, the combination of which does not exceed 90 feet in length, may be operated on the highways of this State, provided that such operation takes place for one or more of the following purposes:

(1) Driving to or from a motorsports competition event.

(2) For trips conducted for the purpose of purchasing fuel or conducting repairs or other maintenance on the competition vehicle.

(3) For other activities related to motorsports purposes, including, but not limited to, performance testing of the competition vehicle. The Department of Transportation may prohibit combinations authorized by this subsection from specific routes, pursuant to G.S. 20-115.1(b).

§ 20-116. Size of vehicles and loads.

(a) The total outside width of any vehicle or the load thereon shall not exceed 102 inches, except as otherwise provided in this section. When hogsheads of tobacco are being transported, a tolerance of six inches is allowed. When sheet or bale tobacco is being transported the load must not exceed a width of 114 inches at the top of the load and the bottom of the load at the truck bed must not exceed the width of 102 inches inclusive of allowance for load shifting or settling. Vehicles (other than passenger buses) that do not exceed the overall width of 102 inches and otherwise provided in this section may be operated in accordance with G.S. 20-115.1(c), (f), and (g).

(b) No passenger-type vehicle or recreational vehicle shall be operated on any highway with any load carried thereon extending beyond the line of the fenders on the left side of such vehicle nor extending more than six inches beyond the line of the fenders on the right side thereof.

(c) No vehicle, unladen or with load, shall exceed a height of 13 feet, six inches. Provided, however, that neither the State of North Carolina nor any agency or subdivision thereof, nor any person, firm or corporation, shall be required to raise, alter, construct or reconstruct any underpass, wire, pole, trestle, or other structure to permit the passage of any vehicle having a height, unladen or with load, in excess of 12 feet, six inches. Provided further, that the operator or owner of any vehicle having an overall height, whether unladen or with load, in excess of 12 feet, six inches, shall be liable for damage to any structure caused by such vehicle having a height in excess of 12 feet, six inches.

(d) Maximum Length. - The following maximum lengths apply to vehicles. A truck-tractor and semitrailer shall be regarded as two vehicles for the purpose of determining lawful length and license taxes.

(1) Except as otherwise provided in this subsection, a single vehicle having two or more axles shall not exceed 40 feet in length overall of dimensions inclusive of front and rear bumpers.

(2) Trucks transporting unprocessed cotton from farm to gin, or unprocessed sage from farm to market shall not exceed 50 feet in length overall of dimensions inclusive of front and rear bumpers.

(3) Recreational vehicles shall not exceed 45 feet in length overall, excluding bumpers and mirrors.

(4) Vehicles owned or leased by State, local, or federal government, when used for official law enforcement or emergency management purposes, shall not exceed 45 feet in length overall, excluding bumpers and mirrors.

(e) Except as provided by G.S. 20-115.1, no combination of vehicles coupled together shall consist of more than two units and no such combination of vehicles shall exceed a total length of 60 feet inclusive of front and rear bumpers, subject to the following exceptions: Motor vehicle combinations of one semitrailer of not more than 53 feet in length and a truck tractor (power unit) may exceed the 60-foot maximum length. Said maximum overall length limitation shall not apply to vehicles operated in the daytime when transporting poles, pipe, machinery or other objects of a structural nature which cannot readily be dismembered, nor to such vehicles transporting such objects operated at nighttime by a public utility when required for emergency repair of public service facilities or properties, provided the trailer length does not exceed 53 feet in length, but in respect to such night transportation every such vehicle and the load thereon shall be equipped with a sufficient number of clearance lamps on both sides and marker lamps upon the extreme ends of said projecting load to clearly mark the dimensions of such load: Provided that vehicles designed and used exclusively for the transportation of motor vehicles shall be permitted an overhang tolerance front or rear not to exceed five feet. Provided, that wreckers may tow a truck, combination tractor and trailer, trailer, or any other disabled vehicle or combination of vehicles to a place for repair, parking, or storage within 50 miles of the point where the vehicle was disabled and may tow a truck, tractor, or other replacement vehicle to the site of the disabled vehicle. Provided further, that the said limitation that no combination of vehicles coupled together shall consist of more than two units shall not apply to trailers not exceeding three in number drawn by a motor vehicle used by municipalities for the removal of domestic and commercial refuse and street rubbish, but such combination of vehicles shall not exceed a total length of 50 feet inclusive of front and rear bumpers. Provided further, that the said limitation that no combination of vehicles coupled together shall consist of more than two units shall not apply to a combination of vehicles coupled together by a saddle mount device used to transport motor vehicles in a driveway service when no more than three saddle mounts are used and provided further, that equipment used in said combination is approved by the safety

regulations of the Federal Highway Administration and the safety rules of the Department of Public Safety.

(f) The load upon any vehicle operated alone, or the load upon the front vehicle of a combination of vehicles, shall not extend more than three feet beyond the foremost part of the vehicle. Under this subsection "load" shall include the boom on a self-propelled vehicle.

A utility pole carried by a self-propelled pole carrier may extend beyond the front overhang limit set in this subsection if the pole cannot be dismembered, the pole is less than 80 feet in length and does not extend more than 10 feet beyond the front bumper of the vehicle, and either of the following circumstances apply:

(1) It is daytime and the front of the extending load of poles is marked by a flag of the type required by G.S. 20-117 for certain rear overhangs.

(2) It is nighttime, operation of the vehicle is required to make emergency repairs to utility service, and the front of the extending load of poles is marked by a light of the type required by G.S. 20-117 for certain rear overhangs.

As used in this subsection, a "self-propelled pole carrier" is a vehicle designed to carry a pole on the side of the vehicle at a height of at least five feet when measured from the bottom of the brace used to carry the pole. A self-propelled pole carrier may not tow another vehicle when carrying a pole that extends beyond the front overhang limit set in this subsection.

(g) (1) No vehicle shall be driven or moved on any highway unless the vehicle is constructed and loaded to prevent any of its load from falling, blowing, dropping, sifting, leaking, or otherwise escaping therefrom, and the vehicle shall not contain any holes, cracks, or openings through which any of its load may escape. However, sand may be dropped for the purpose of securing traction, or water or other substance may be sprinkled, dumped, or spread on a roadway in cleaning or maintaining the roadway. For purposes of this subsection, the terms "load" and "leaking" do not include water accumulated from precipitation.

(2) A truck, trailer, or other vehicle licensed for more than 7,500 pounds gross vehicle weight that is loaded with rock, gravel, stone, or any other similar substance, other than sand, that could fall, blow, leak, sift, or drop shall not be driven or moved on any highway unless:

a. The height of the load against all four walls does not extend above a horizontal line six inches below their tops when loaded at the loading point; and

b. The load is securely covered by tarpaulin or some other suitable covering to prevent any of its load from falling, dropping, sifting, leaking, blowing, or otherwise escaping therefrom.

(3) A truck, trailer, or other vehicle:

a. Licensed for any gross vehicle weight and loaded with sand; or

b. Licensed for 7,500 pounds or less gross vehicle weight and loaded with rock, gravel, stone, or any other similar substance that could fall, blow, leak, sift, or drop;

shall not be driven or moved on any highway unless:

- a. The height of the load against all four walls does not extend above a horizontal line six inches below the top when loaded at the loading point;
- b. The load is securely covered by tarpaulin or some other suitable covering; or
- c. The vehicle is constructed to prevent any of its load from falling, dropping, sifting, leaking, blowing, or otherwise escaping therefrom.

(4) This section shall not be applicable to or in any manner restrict the transportation of seed cotton, poultry or livestock, or silage or other feed grain used in the feeding of poultry or livestock.

(h) Whenever there exist two highways of the State highway system of approximately the same distance between two or more points, the Department of Transportation may, when in the opinion of the Department of Transportation, based upon engineering and traffic investigation, safety will be promoted or the public interest will be served, designate one of the highways the "truck route" between those points, and to prohibit the use of the other highway by heavy trucks or other vehicles of a gross vehicle weight or axle load limit in excess of a designated maximum. In such instances the highways selected for heavy vehicle traffic shall be designated as "truck routes" by signs conspicuously posted, and the highways upon which heavy vehicle traffic is prohibited shall likewise be designated by signs conspicuously posted showing the maximum gross vehicle weight or axle load limits authorized for those highways. The operation of any vehicle whose gross vehicle weight or axle load exceeds the maximum limits shown on signs over the posted highway shall constitute a Class 2 misdemeanor: Provided, that nothing in this subsection shall prohibit a truck or other motor vehicle whose gross vehicle weight or axle load exceeds that prescribed for those highways from using them when its destination is located solely upon that highway, road or street: Provided, further, that nothing in this subsection shall prohibit passenger vehicles or other light vehicles from using any highways designated for heavy truck traffic.

(i) Repealed by Session Laws 1973, c. 1330, s. 39.

(j) Nothing in this section shall be construed to prevent the operation of self-propelled grain combines or other self-propelled farm equipment with or without implements, not exceeding 25 feet in width on any highway, unless the operation violates a provision of this subsection. Farm equipment includes a vehicle that is designed exclusively to transport compressed seed cotton from a farm to a gin and has a self-loading bed. Combines or equipment which exceed 10 feet in width may be operated only if they meet all of the conditions listed in this subsection. A violation of one or more of these conditions does not constitute negligence per se.

(1) The equipment may only be operated during daylight hours.

(2) The equipment must display a red flag on front and rear ends or a flashing warning light. The flags or lights shall be attached to the equipment as to be visible from both directions at all times while being operated on the public highway for not less than 300 feet.

(3) Equipment covered by this section, which by necessity must travel more than 10 miles or where by nature of the terrain or obstacles the flags or lights referred to in subdivision (2) of this subsection are not visible from both directions for 300 feet at any point along the proposed route, must be preceded at a distance of 300 feet and followed at a distance of 300 feet by a flagman in a vehicle having mounted thereon an appropriate warning light or flag. No flagman in a vehicle shall be required pursuant to this subdivision if the equipment is being moved under its own power or on a trailer from any field to another field, or from the normal place of storage of the vehicle to any field, for no more than ten miles and if visible from both directions for 300 feet at any point along the proposed route.

(4) Every piece of equipment so operated shall operate to the right of the center line when meeting traffic coming from the opposite direction and at all other times when possible and practical.

(5) Repealed by Session Laws 2008-221, s. 6, effective September 1, 2008.

(6) When the equipment is causing a delay in traffic, the operator of the equipment shall move the equipment off the paved portion of the highway at the nearest practical location until the vehicles following the equipment have passed.

(7) The equipment shall be operated in the designed transport position that minimizes equipment width. No removal of equipment or appurtenances is required under this subdivision.

(8) Equipment covered by this subsection shall not be operated on a highway or section of highway that is a fully controlled access highway or is a part of the National System of Interstate and Defense Highways without authorization from the North Carolina Department of Transportation. The Department shall develop an authorization process and approve routes under the following conditions:

a. Persons shall submit an application to the Department requesting authorization to operate equipment covered by this subsection on a particular route that is part of a highway or section of highway that is a fully controlled access highway or is a part of the National System of Interstate and Defense Highways.

b. The Department shall have a period of 30 days from receipt of a complete application to approve or reject the application. A complete application shall be deemed approved if the Department does not take action within 30 days of receipt by the Department; such a route may then be used by the original applicant.

c. The Department shall approve an application upon a showing that the route is necessary to accomplish one or more of the following:

1. Prevent farming operations from traveling more than five miles longer than the requested route during the normal course of business.
2. Prevent excess traffic delays on local or secondary roads.
3. Allow farm equipment access due to dimension restrictions on local or secondary roads.

- d. For applications that do not meet the requirements of sub-subdivision c. of this subdivision, the Department may also approve an application upon review of relevant safety factors.
- e. The Department may consult with the North Carolina State Highway Patrol, the North Carolina Department of Agriculture and Consumer Services, or other parties concerning an application.
- f. Any approved route may be subject to any of the following additional conditions:
1. A requirement that the subject equipment be followed by a flag vehicle with flashing lights that shall be operated at all times on the route so as to be visible from a distance of at least 300 feet.
 2. Restrictions on maximum and minimum speeds of the equipment.
 3. Restrictions on the maximum dimensions of the equipment.
 4. Restrictions on the time of day that the equipment may be operated on the approved route.
- g. The Department shall publish all approved routes, including any conditions on the routes' use, and shall notify appropriate State and local law enforcement officers of any approved route.
- h. Once approved for use and published by the Department, a route may be used by any person who adheres to the route, including any conditions on the route's use imposed by the Department.
- i. The Department may revise published routes as road conditions on the routes change.
- (k) Nothing in this section shall be construed to prevent the operation of passenger buses having an overall width of 102 inches, exclusive of safety equipment, upon the highways of this State which are 20 feet or wider and that are designated as the State primary system, or as municipal streets, when, and not until, the federal law and regulations thereunder permit the operation of passenger buses having a width of 102 inches or wider on the National System of Interstate and Defense Highways.
- (l) Nothing in this section shall be construed to prevent the operation of passenger buses that are owned and operated by units of local government, operated as a single vehicle only and having an overall length of 45 feet or less, on public streets or highways. The Department of Transportation may prevent the operation of buses that are authorized under this subsection if the operation of such buses on a street or highway presents a hazard to passengers of the buses or to the motoring public.
- (m) Notwithstanding subsection (a) of this section, a boat or boat trailer with an outside width of less than 120 inches may be towed without a permit. The towing of a boat or boat trailer 102 inches to 114 inches in width may take place on any day of the week, including weekends and holidays, and may take place at night. The towing of a boat or boat trailer 114 inches to 120 inches in width may take place on any day of the week, including weekends and holidays from

sun up to sun down. A boat or boat trailer in excess of 102 inches but less than 120 inches must be equipped with a minimum of two operable amber lamps on the widest point of the boat and the boat trailer such that the dimensions of the boat and the boat trailer are clearly marked and visible.

(n) Vehicle combinations used in connection with motorsports competition events that include a cab or other motorized vehicle unit with living quarters, and an attached enclosed specialty trailer, the combination of which does not exceed 90 feet in length, may be operated on the highways of this State, provided that such operation takes place for one or more of the following purposes:

- (1) Driving to or from a motorsports competition event.
- (2) For trips conducted for the purpose of purchasing fuel or conducting repairs or other maintenance on the competition vehicle.
- (3) For other activities related to motorsports purposes, including, but not limited to, performance testing of the competition vehicle.

The Department of Transportation may prohibit combinations authorized by this subsection from specific routes, pursuant to G.S. 20-115.1(b).

§ 20-115.1. Limitations on tandem trailers and semitrailers on certain North Carolina highways.

(a) Motor vehicle combinations consisting of a truck tractor and two trailing units may be operated in North Carolina only on highways of the interstate system (except those exempted by the United States Secretary of Transportation pursuant to 49 USC 2311(i)) and on those sections of the federal-aid primary system designated by the United States Secretary of Transportation. No trailer or semitrailer operated in this combination shall exceed 28 feet in length; Provided, however, a 1982 or older year model trailer or semitrailer of up to 28 1/2 feet in length may operate in a combination permitted by this section for trailers or semitrailers which are 28 feet in length.

(b) Motor vehicle combinations consisting of a semitrailer of not more than 53 feet in length and a truck tractor may be operated on all primary highway routes of North Carolina provided the motor vehicle combination meets the requirements of this subsection. The Department may, at any time, prohibit motor vehicle combinations on portions of any route on the State highway system. If the Department prohibits a motor vehicle combination on any route, it shall submit a written report to the Joint Legislative Transportation Oversight Committee within six months of the prohibition clearly documenting through traffic engineering studies that the operation of a motor vehicle combination on that route cannot be safely accommodated and that the route does not have sufficient capacity to handle the vehicle combination. To operate on a primary highway route, a motor vehicle combination described in this subsection must meet all of the following requirements:

- (1) The motor vehicle combination must comply with the weight requirements in G.S. 20-118.
- (2) A semitrailer in excess of 48 feet in length must meet one or more of the following conditions:
 - (a) The distance between the kingpin of the trailer and the rearmost axle, or a point midway between the two rear axles, if the two rear axles are a tandem axle, does not exceed 41 feet.
 - (b) The semitrailer is used exclusively or primarily to transport vehicles in connection with motorsports competition events, and the distance between the kingpin of the trailer and the rearmost axle, or a point midway between the two rear axles, if the two rear axles are a tandem axle, does not exceed 46 feet.
- (3) A semitrailer in excess of 48 feet must be equipped with a rear underride guard of substantial construction consisting of a continuous lateral beam extending to within four inches of the lateral extremities of the semitrailer and located not more than 30 inches from the surface as measured with the vehicle empty and on a level surface.
 - (c) Motor vehicles with a width not exceeding 102 inches may be operated on the interstate highways (except those exempted by the United States Secretary of Transportation pursuant to 49 USC 2316(e)) and other qualifying federal-aid highways designated by the United States Secretary of Transportation, with traffic lanes designed to be a width of 12 feet or more and any other qualifying federal-aid primary system highway designated by the United States Secretary of Transportation if the Secretary has determined that the designation is consistent with highway safety.
 - (d) Notwithstanding the provisions of subsections (a) and (b) of this section which limit the length of trailers which may be used in motor vehicle combinations in this State on highways of the interstate system (except those exempted by the United States Secretary of Transportation pursuant to 49 USC 2311(i)) and on those sections of the federal-aid primary system designated by the United States Secretary of Transportation, there is no limitation of the length of the truck tractor which may be used in motor vehicle combinations on these highways and therefore, in compliance with Section 411(b) of the Surface Transportation Act of 1982, there is no overall length limitation for motor vehicle combinations regulated by this section.
 - (e) The length and width limitations in this section are subject to exceptions and exclusions for safety devices and specialized equipment as provided for in 49 USC 2311(d)(h) and Section 416 of the Surface Transportation Act of 1982 as amended (49 USC 2316).
 - (f) Motor vehicle combinations operating pursuant to this section shall have reasonable access between (i) highways on the interstate system (except those exempted by the United States Secretary of Transportation pursuant to 49 USC 2311(i) and 49 USC 2316(e)) and other qualifying federal-aid highways as designated by the United States Secretary of Transportation and (ii) terminals, facilities for food, fuel, repairs, and rest and points of loading and unloading by household goods carriers and by any truck tractor-semitrailer combination in which the semitrailer has a length not to exceed 28 1/2 feet and a width not to exceed 102 inches as

provided in subsection (c) of this section and which generally operates as part of a vehicle combination described in subsection (a) of this section. The North Carolina Department of Transportation may, on streets and highways on the State highway system, and any municipality may, on streets and highways on the municipal street system, impose reasonable restrictions based on safety considerations on any truck tractor-semitrailer combination in which the semitrailer has a length not to exceed 28 1/2 feet and which generally operates as part of a vehicle combination described in subsection (a) of this section. "Reasonable access" to facilities for food, fuel, repairs and rest shall be deemed to be those facilities which are located within three road miles of the interstate or designated highway. The Department of Transportation is authorized to promulgate rules and regulations providing for "reasonable access." The Department may approve reasonable access routes for one particular type of STAA (Surface Transportation Assistance Act) dimensioned vehicle when significant, substantial differences in their operating characteristics exist.

(g) Under certain conditions, and after consultation with the Joint Legislative Commission on Governmental Operations, the North Carolina Department of Transportation may designate State highway system roads in addition to those highways designated by the United States Secretary of Transportation for use by the vehicle combinations authorized in this section. Such designations by the Department shall only be made under the following conditions:

- (1) A determination of the public convenience and need for such designation;
- (2) A traffic engineering study which clearly shows the road proposed to be designated can safely accommodate and has sufficient capacity to handle these vehicle combinations; and
- (3) A public hearing is held or the opportunity for a public hearing is provided in each county through which the designated highway passes, after two weeks notice posted at the courthouse and published in a newspaper of general circulation in each county through which the designated State highway system road passes, and consideration is given to the comments received prior to the designation.
- (4) The Department may designate routes for one particular type of STAA (Surface Transportation Assistance Act) dimensioned vehicle when significant, substantial differences in their operating characteristics exist.

The Department may not designate any portion of the State highway system that has been deleted or exempted by the United States Secretary of Transportation based on safety considerations. For the purpose of this section, any highway designated by the Department shall be deemed to be the same as a federal-aid primary highway designated by the United States Secretary of Transportation pursuant to 49 USC 2311 and 49 USC 2316, and the vehicle combinations authorized in this section shall be permitted to operate on such highway.

(h) Any owner of a semitrailer less than 50 feet in length in violation of subsections (a) or (b) is responsible for an infraction and is subject to a penalty of one hundred dollars (\$100.00). Any owner of a semitrailer 50 feet or greater in length in violation of subsection (b) is responsible for an infraction and subject to a penalty of two hundred dollars (\$200.00).

(i) Any driver of a vehicle with a semitrailer less than 50 feet in length violating subsections (a) or (b) of this section is guilty of a Class 3 misdemeanor punishable only by a fine of one hundred dollars (\$100.00). Any driver of a vehicle with a semitrailer 50 feet or more in length violating subsection (b) of this section is guilty of a Class 3 misdemeanor punishable only by a fine of two hundred dollars (\$200.00).

(j) Notwithstanding any other provision of this section, a manufacturer of trailer frames, with a permit issued pursuant to G.S. 20-119, is authorized to transport the trailer frame to another location within three miles of the first place of manufacture to the location of completion on any public street or highway if the width of the trailer frame does not exceed 14 feet and oversize markings and safety flags are used during transport. Trailer frames transported pursuant to this subsection shall not exceed 7,000 pounds, and the vehicle towing the trailer frame shall have a towing capacity greater than 10,000 pounds and necessary towing equipment. The transport of trailer frames under this subsection shall only be done during daylight hours.

§ 20-124. **Brakes**

- (a) Every motor vehicle when operated upon a highway shall be equipped with **brakes** adequate to control the movement of and to stop such vehicle or vehicles, and such **brakes** shall be maintained in good working order and shall conform to regulations provided in this section.
- (b) Repealed by Session Laws 1973, c. 1330, s. 39.
- (c) Every motor vehicle when operated on a highway shall be equipped with **brakes** adequate to control the movement of and to stop and hold such vehicle, and shall have all originally equipped **brakes** in good working order, including two separate means of applying the **brakes**. If these two separate means of applying the **brakes** are connected in any way, they shall be so constructed that failure of any one part of the operating mechanism shall not leave the motor vehicle without **brakes**.
- (d) Every motorcycle and every motor-driven cycle when operated upon a highway shall be equipped with at least one **brake** which may be operated by hand or foot.
- (e) Motor trucks and tractor-trucks with semitrailers attached shall be capable of stopping on a dry, hard, approximately level highway free from loose material at a speed of 20 miles per hour within the following distances: Thirty feet with both hand and service **brake** applied simultaneously and 50 feet when either is applied separately, except that vehicles maintained and operated permanently for the transportation of property and which were registered in this or any other state or district prior to August, 1929, shall be capable of stopping on a dry, hard, approximately level highway free from loose material at a speed of 20 miles per hour within a distance of 50 feet with both hand and service **brake** applied simultaneously, and within a distance of 75 feet when either applied separately.
- (e1) Every motor truck and truck-tractor with semitrailer attached, shall be equipped with **brakes** acting on all wheels, except trucks and truck-tractors having three or more

axles need not have **brakes** on the front wheels if manufactured prior to July 25, 1980. However, such trucks and truck-tractors must be capable of complying with the performance requirements of [G.S. 20-124\(e\)](#).

- **(f)** Every semitrailer, or **trailer**, or separate vehicle, attached by a drawbar or coupling to a towing vehicle, and having a gross weight of two tons, and all house **trailers** of 1,000 pounds gross weight or more, shall be equipped with **brakes** controlled or operated by the driver of the towing vehicle, which shall conform to the specifications set forth in subsection (e) of this section and shall be of a type approved by the Commissioner.

It shall be unlawful for any person or corporation engaged in the business of selling house **trailers** at wholesale or retail to sell or offer for sale any house **trailer** which is not equipped with the **brakes** required by this subsection.

This subsection shall not apply to house **trailers** being used as dwellings, or to house **trailers** not intended to be used or towed on public highways and roads. This subsection shall not apply to house **trailers** with a manufacturer's certificate of origin dated prior to December 31, 1974.

- **(g)** The provisions of this section shall not apply to a **trailer** when used by a farmer, a farmer's tenant, agent, or employee if the **trailer** is exempt from registration by the provisions of [G.S. 20-51](#). This exemption does not apply to **trailers** that are equipped with **brakes** from the manufacturer and that are manufactured after October 1, 2009.
- **(h)** From and after July 1, 1955, no person shall sell or offer for sale for use in motor vehicle **brake** systems in this State any hydraulic **brake** fluid of a type and brand other than those approved by the Commissioner of Motor Vehicles. From and after January 1, 1970, no person shall sell or offer for sale in motor vehicle **brake** systems any **brake** lining of a type or brand other than those approved by the Commissioner of Motor Vehicles. Violation of the provisions of this subsection shall constitute a Class 2 misdemeanor.
- **(c)** Every **trailer** and semi-**trailer** weighing more than one thousand pounds unladen and every **trailer** and semi-**trailer** manufactured or assembled on or after January first, nineteen hundred seventy-one having a registered maximum gross weight, an actual gross weight or gross weight consisting of the unladen weight and maximum carrying capacity recommended by the manufacturer in excess of three thousand pounds also shall be equipped with adequate brakes in good working order if operated or drawn on the public highways of this state. Every **trailer** while being drawn upon the public highways of this state shall be so attached to the vehicle drawing the same as to prevent the wheels of such **trailer** from being deflected more than six inches from the path of the towing vehicle's wheels. On and after January first, nineteen hundred seventy-one every **trailer**, except a semi-**trailer**, while being drawn upon the public highways of this state, shall be attached to the vehicle drawing the same by a device of a type approved by the commissioner.

- **(d)** The commissioner shall make rules prescribing standards of brake efficiency, except for motor vehicles the standard of brake efficiency of which are fixed by the department of public service, and no brakes shall be deemed adequate within the meaning of this subdivision unless they meet the requirements of such rules. Such rules shall be filed in the office of the secretary of state and thereafter published once in the state advertising bulletin and shall become effective one month after such publication. Any amendment to such rules shall be likewise filed and published and shall take effect one month after such publication.
- **(e)** No operator or registered owner of any motor vehicle having a registered maximum gross weight of eighteen thousand pounds or more shall disconnect or knowingly permit the disconnection of any set of service brakes on such motor vehicle. Any violation of the provisions of this paragraph shall occur only when such vehicle is actually operated on the public highways. Such violation shall be punishable as a misdemeanor

§ 20-123. **Trailers** and towed vehicles

- **(a)** The limitations in [G.S. 20-116](#) on combination vehicles do not prohibit the towing of farm **trailers** not exceeding three in number nor exceeding a total length of 50 feet during the period from one-half hour before sunrise until one-half hour after sunset when a red flag of at least 12 inches square is prominently displayed on the last vehicle. The towing of farm **trailers** and equipment allowed by this subsection does not apply to interstate or federal numbered highways.
- **(b)** No **trailer** or semitrailer or other towed vehicle shall be operated over the highways of the State unless such **trailer** or semitrailer or other towed vehicle be firmly attached to the rear of the towing unit, and unless so equipped that it will not snake, but will travel in the path of the vehicle drawing such **trailer** or semitrailer or other towed vehicle, which equipment shall at all times be kept in good condition.
- **(c)** In addition to the requirements of subsections (a) and (b) of this section, the towed vehicle shall be attached to the towing unit by means of safety chains or cables which shall be of sufficient strength to hold the gross weight of the towed vehicle in the event the primary towing device fails or becomes disconnected while being operated on the highways of this State if the primary towing attachment is a ball **hitch**. **Trailers** and semitrailers having locking pins or bolts in the towing attachment to prevent disconnection, and the locking pins or bolts are of sufficient strength and condition to hold the gross weight of the towed vehicle, need not be equipped with safety chains or cables unless their operation is subject to the requirements of the Federal Motor Carrier Safety Regulations. Semitrailers in combinations of vehicles that are equipped with fifth wheel assemblies that include locking devices need not be equipped with safety chains or cables.

§ 20-131. Requirements as to headlamps and auxiliary driving **lamps**

- (a) The headlamps of motor vehicles shall be so constructed, arranged, and adjusted that, except as provided in subsection (c) of this section, they will at all times mentioned in [G.S. 20-129](#), and under normal atmospheric conditions and on a level road, produce a driving light sufficient to render clearly discernible a person 200 feet ahead, but any person operating a motor vehicle upon the highways, when meeting another vehicle, shall so control the lights of the vehicle operated by him by shifting, depressing, deflecting, tilting, or dimming the headlight beams in such manner as shall not project a glaring or dazzling light to persons within a distance of 500 feet in front of such headlamp. Every new motor vehicle, other than a motorcycle or motor-driven cycle, registered in this State after January 1, 1956, which has multiple-beam road-lighting equipment shall be equipped with a beam indicator, which shall be lighted whenever the uppermost distribution of light from the headlamps is in use, and shall not otherwise be lighted. Said indicator shall be so designed and located that when lighted it will be readily visible without glare to the driver of the vehicle so equipped.
- (b) Headlamps shall be deemed to comply with the foregoing provisions prohibiting glaring and dazzling lights if none of the main bright portion of the headlamp beams rises above a horizontal plane passing through the **lamp** centers parallel to the level road upon which the loaded vehicle stands, and in no case higher than 42 inches, 75 feet ahead of the vehicle.
- (c) Whenever a motor vehicle is being operated upon a highway, or portion thereof, which is sufficiently lighted to reveal a person on the highway at a distance of 200 feet ahead of the vehicle, it shall be permissible to dim the headlamps or to tilt the beams downward or to substitute therefor the light from an auxiliary driving **lamp** or pair of such **lamps**, subject to the restrictions as to tilted beams and auxiliary driving **lamps** set forth in this section.
- (d) Whenever a motor vehicle meets another vehicle on any highway it shall be permissible to tilt the beams of the headlamps downward or to substitute therefor the light from an auxiliary driving **lamp** or pair of such **lamps** subject to the requirement that the tilted headlamps or auxiliary **lamp** or **lamps** shall give sufficient illumination under normal atmospheric conditions and on a level road to render clearly discernible a person 75 feet ahead, but shall not project a glaring or dazzling light to persons in front of the vehicle: Provided, that at all times required in [G.S. 20-129](#) at least two lights shall be displayed on the front of and on opposite sides of every motor vehicle other than a motorcycle, road roller, road machinery, or farm tractor.
- (e) No city or town shall enact an ordinance in conflict with this section.

§ 20-126. **Mirrors**

- (a) No person shall drive a motor **vehicle** on the streets or highways of this State unless equipped with an inside rearview **mirror** of a type approved by the Commissioner, which provides the driver with a clear, undistorted, and reasonably unobstructed view of the highway to the rear of such **vehicle**; provided, a **vehicle** so constructed or loaded as to

make such inside rearview **mirror** ineffective may be operated if equipped with **amirror** of a type to be approved by the Commissioner located so as to reflect to the driver a view of the highway to the rear of such **vehicle**. A violation of this subsection shall not constitute negligence per se in civil actions. Farm tractors, self-propelled implements of husbandry and construction equipment and all self-propelled **vehicles** not subject to registration under this Chapter are exempt from the provisions of this section. Provided that pickup trucks equipped with an outside rearview **mirror** approved by the Commissioner shall be exempt from the inside rearview **mirror** provision of this section. Any inside **mirror** installed in any motor **vehicle** by its manufacturer shall be deemed to comply with the provisions of this subsection.

- (b) It shall be unlawful for any person to operate upon the highways of this State any **vehicle** manufactured, assembled or first sold on or after January 1, 1966 and registered in this State unless such **vehicle** is equipped with at least one outside **mirror** mounted on the driver's side of the **vehicle**. **Mirrors** herein required shall be of a type approved by the Commissioner.
- (c) No person shall operate a motorcycle upon the streets or highways of this State unless such motorcycle is equipped with a rearview **mirror** so mounted as to provide the operator with a clear, undistorted and unobstructed view of at least 200 feet to the rear of the motorcycle. No motorcycle shall be registered in this State after January 1, 1968, unless such motorcycle is equipped with a rearview **mirror** as described in this section. Violation of the provisions of this subsection shall not be considered negligence per se or contributory negligence per se in any civil action.