



## **IICL Chassis Technical Bulletin – CTB 023**

**July 2016**

### **Title: Chassis – State Mudflap Regulations**

The Federal Regulations do not cover mudflaps; it's up to each State to make its own rules and the rules vary among the states.

The Society of Automotive Engineers (SAE) recommends the "SAE 22.5-degree rule". "The bottom edge of the mud flap should be above the ground by no more than a line which projects upward at a 22.5-degree angle from the intersection of the vertical centerline of the rearmost tire w/ the ground."

**With the chassis carrying a loaded container, the bottom of the mudflap should be between 6" and 8" off the ground.**

**With the chassis bare – not carrying a container - the bottom of the mudflap should be between 8" and 10" off the ground.**

If mounted too low, the chassis tires could back-up over the flap or it could get caught against a curb, dock or concrete barrier.

If mounted too high, spray and debris from turning wheels will not be effectively blocked.

Due to mounting bracket location, 40' goosenecks have "taller" mudflaps than 23' and 53'.

On a 53' chassis, the mudflaps should move with the wheels when the slider moves.

**Listed below for your reference is a summary by State in which you can view to see your states current law regarding mudflaps:**

State Requirements for Mud Flaps Currently, there are no federal regulations governing mud flaps or splash/spray suppression devices. However, many states maintain their own requirements that vary considerably from state to state, and several states do not have any such regulations. Following is a summary of the requirements for mud flaps or splash/ spray suppression devices for all 50 states and the District of Columbia as of April 14, 2006. This summary is a brief listing of each state's requirements as they pertain to trucks, buses and trailers. State regulations can change frequently, so you should consult an individual state's Department of Transportation periodically for revisions or additional details.

Alabama: All buses, trucks and semi-trailers shall have mud flaps sufficiently covering the rear of the rear wheel to prevent as far as practicable gravel, stones or other materials from being thrown into the windshields of other vehicles.

Alaska: No person may drive a motor vehicle unless it has a device that effectively reduces the wheel spray or splash of water or other substance to the rear of the vehicle. The device required in this section must be installed and maintained so that the device placed behind a wheel extends downward to a distance of 14" from the surface of the ground when the vehicle is sitting on level ground. A person may not drive a motor vehicle on a highway unless the vehicle is equipped with fenders, mud flaps, or other anti-spray devices adequate to prevent the vehicle from being a hazard to other users of the highway.

Arizona: Splash guards: shall be attached in a manner that prevents the splashing of mud or water on the windshield of other motor vehicles; shall extend to a length of not more than 8" from the ground; shall be wide enough to cover the full tread(s) of the tires being protected; shall be installed close enough to the tread surface of the tire or wheel to control the side throw of the bulk of the thrown road surface material; may be constructed of a flexible, rubberized material; and shall be attached in a manner that, regardless of movement either in the splash guards or the vehicle, the splash guards retain their general parallel relationship to the tread surface of the tire or wheel under all ordinary operating conditions. This section does not apply to: a vehicle commonly known as a pickup truck with a manufacturer's rating of 3/4-ton or less (exception: this section applies if the pickup truck has been modified from the original bumper height design to raise the center of gravity of the pickup truck); a truck-tractor or converter dolly when used in combination with another vehicle; or a single-axle trailer with fenders wide enough to cover the full tread(s) of the tires being protected and that extend to a length of not more than 14" from the ground.

Arkansas: All trailers, trucks, truck-tractors and/ or semi-trailers with a gross vehicle weight rating (GVWR) exceeding 10,000 lbs. operated over the highways of the State of

Arkansas, subject to the jurisdiction of this Commission, shall have attached thereto a splash apron (mud flaps) of flexible material directly to the rear of the rearmost wheels, hanging perpendicularly at right angles to the body of the vehicle, and parallel with the rearmost axle; said upon shall be of such size, weight and substance as to prevent the bulk of the spray or other substance picked up from the roadway from being thrown on the windshield of a following vehicle.

California: All vehicles must be equipped with the proper fenders, covers, flaps or splash aprons to cover the entire width of all tires and effectively minimize the spray or splash of the water or mud.

Colorado: Splash guards, mud flaps of rubber, plastic, or fabric aprons, or other devices directly behind the rearmost wheels, designed to minimize the spray of water and other substances to the rear. Guards must, at a minimum, be wide enough to cover the full tread of the tire(s) being protected; hang perpendicular from the vehicle not more than 10" above the surface of the street or highway when the vehicle is empty; and generally maintain their perpendicular relationship under normal driving conditions. No vehicle or motor vehicle shall be driven or moved on any street or highway unless the vehicle or motor vehicle is equipped with a splash guard. This does not apply to: passenger-carrying motor vehicles; trucks and truck-tractors having an empty weight of 10,000 lbs. or less; trailers equipped with fenders or utility pole trailers; vehicles involved in chip and seal paving operations; or road widening equipment, truck-tractors or converter dollies when used in combination with other vehicles.

Connecticut: No person shall operate or cause to be operated any bus, truck, truck-tractor, full trailer or semi-trailer of registered gross vehicle weight exceeding 3 tons on any public highway unless the same is equipped with suitable metal protectors or substantial flexible flaps behind the rearmost wheels; and, in case the rear wheels are not covered at the top and the rear by fender, body or other part of the vehicle, the rear wheels shall be covered at the top and the rear by protective means of such standard type or design and so installed as to reduce — as far as practicable — such wheels from throwing dirt, water or other materials on the windshields of following vehicles, except in cases in which the motor vehicle is so designed and constructed that the above requirements are accomplished by reason of the fender or body construction or other means of enclosure.

Delaware: It is not permitted to operate any bus or commercial motor vehicle having a gross vehicle weight rating of 8,000 lbs. or more, including semi-trailers and trailers, upon the highways of this State unless it is equipped with suitable metal protectors or substantial flexible flaps behind the rearmost wheels of the vehicle, or a combination to prevent the projection of rocks, dirt, water or other substances to the rear and to minimize side spray. The flap, shield or other device shall extend down from the vehicle's body to not more than 8" above the road surface, but not more than 15" when the vehicle is in an unloaded condition. The protector or flap shall extend laterally at

least the width of the tire being protected. If any bus or commercial motor vehicle, including semi-trailers and trailers, is so designed or constructed that the objectives are accomplished by reason of fender or body construction or other means of enclosure — either permanent or temporary — then the requirements of this section have been satisfied. This section shall not apply to any farm tractor or to uncoupled truck-tractors or other vehicles where the construction is such that complete freedom around the wheel area is necessary to secure the designed use of the vehicle.

District of Columbia: No mud flap requirements on commercial motor vehicles.

Florida: It is not permitted to operate any truck of gross vehicle weight of 26,000 lbs. or more, any truck tractor or any trailer or semi-trailer the net weight of which is 2,000 lbs. or more or unless such vehicle is equipped with fenders, covers, or other splash and spray suppressant devices, such as substantial flexible flaps on the rearmost wheels of such vehicle or combination of vehicles that will effectively prevent or minimize the splash or spray of water or mud and the throwing of other materials on the windshields of following vehicles. The provisions of this section shall not apply to vehicles used exclusively for the purpose of producing, processing or transporting agricultural products, including horticultural or forestry products.

Georgia: Every bus, truck, full trailer, semitrailer and pole trailer — with the exception of local haul pulpwood trucks and local haul waste collection dumping trailers — shall be equipped with suitable metal protectors or substantial flexible flaps on the rearmost wheels to prevent, as far as practicable, such wheels from throwing dirt, gravel, rocks, water, or other materials on the windshields of following vehicles. Such protectors or flaps shall have a ground clearance of not more than one-half of the distance from the center of the rearmost axle to the center of the protector or flap under any conditions of loading of the vehicle, and shall be at least as wide as the tires they are covering; provided, however, that if any such bus, truck, full trailer, semi-trailer, or pole trailer is so designed and constructed that the foregoing requirements are accomplished by means of fenders, body construction, or other enclosures, then the protectors or flaps provided for in this Code section shall not be required.

Hawaii: Mudguards: protective devices. A commercial motor vehicle shall not be operated on the public highways unless the vehicle is equipped with fenders, covers, or other devices, including flaps or splash aprons, to minimize the spray or splash of water or mud to the rear of the vehicle.

Idaho: Every truck, bus, semi-trailer, or trailer must be equipped with fenders or covers, that may include flaps or splash aprons, over and to the rear of the wheels not more than 10" above the roadway when vehicle is empty. The fender or cover must be so constructed as to be capable at all times of arresting and deflecting such dirt, mud, water or other substance.

Illinois: No person may operate a vehicle, except a truck-tractor, outside of an urban area unless the vehicle is equipped with rear fender splashguards of either the contour or flap type that are attached to prevent the splashing of mud or water upon the windshield or other motor vehicles.

Indiana: No mud flap requirements on commercial motor vehicles.

Iowa: No mud flap requirements on commercial motor vehicles.

Kansas: No mud flap requirements on commercial motor vehicles. (However, Kansas currently has legislation in process, but at this time, the bill has not been signed into law).

Kentucky: No mud flap requirements on commercial motor vehicles.

Louisiana: All vehicles, except those exempt from registration, having an unladen weight of less than 1,500 lbs., or any trucks or farm vehicles handling and hauling agricultural and/or forest products, must be equipped with fenders, covers or devices, including flaps or splashguards that effectively minimize the spray or splash of water, mud or loose material on highways to the rear of the vehicle. Truck-tractors may be transported by the triple-saddle-mount method, provided the rear wheels of the second, third and fourth trucktractors of the combination are equipped with adequate splash guards or mud flaps.

Maine: No mud flap requirements on commercial motor vehicles.

Maryland: A person may not permit to be driven any bus, truck, trailer, or semi-trailer on any highway in this state, unless it is equipped with suitable metal protectors or substantial flexible flaps behind the rearmost wheels of the vehicle or combination of vehicles to prevent the projection of rocks, dirt, water, or other substances to the rear and to minimize side spray. The protectors or flaps shall have a ground clearance of not more than 1/3 of the horizontal distance from the bottom edge of the protector or flap to the centerline of the axle. However, no protector or flap need be closer to the ground than 6" under any condition of loading. The protector or flap shall extend laterally at least the width of tire or tires being protected.

bus, truck, trailer, or semi-trailer is so designed or constructed that the objectives are accomplished by reason of fender or body construction or other means of enclosure, either permanent or temporary, then the requirements of this section have been satisfied. This section does not apply to any farm tractor or to any vehicle registered as a farm truck, or to uncoupled truck tractors, pole trailers or other vehicles where the construction is such that complete freedom around the wheel area is necessary to secure the designed use of the vehicle.

Massachusetts: Every vehicle or trailer must be equipped with suitable guards that will effectively reduce the spray or splash to the rear of mud, water or slush caused by the rear wheels of the motor vehicle or trailer.

Michigan A truck, truck-tractor, semi-trailer, trailer, or any combination thereof, when used on a highway, must be constructed, equipped, or operated to prevent water or other road substances from being thrown from the rear wheels of the vehicle or combination at tangents exceeding  $22\frac{1}{2}^{\circ}$  measured from the road surface. If a flap device is used, it must not have attached any type of lamp, breakable reflective material, or reflecting buttons — nor may the device extend beyond the maximum width of the vehicle or combination.

Minnesota: Every truck, truck-tractor, trailer, semi-trailer, pole trailer and rear-end dump truck, except rear-end dump farm trucks, must be provided with wheel flaps or other suitable protection above and behind the rearmost wheels of the vehicle or combination of vehicles to prevent, as far as practicable, the wheels from throwing dirt, water, or other materials on the windshields of following vehicles. The flaps or protectors must be at least as wide as the tires they are protecting and have a ground clearance of not more than 9" from the ground when the vehicle is empty. If the motor vehicle is so designed and constructed that the requirements are accomplished by means of body construction or other means of enclosure, then no protectors or flaps are required. If the rear wheels are not covered at the top by fenders, body or other parts of the vehicle, the flap or other protective means must be extended at least to a point directly above the center of the rearmost axle.

Mississippi: No person shall operate or cause to be driven any truck, truck-tractor, trailer or semi-trailer, or bus used for the transportation of property or persons the gross vehicle weight of which, including load, exceeds 10 tons unless such motor vehicle is equipped with suitable metal protectors or substantial flexible flaps on the rearmost wheels of such vehicle or combination of vehicles, so as to prevent as far as possible such wheels from throwing dirt, water and other materials on the windshields of following motor vehicles. However, pole trailers, dump trucks and all trucks carrying an "F" license tag shall be exempt from the provisions of this section. Such protectors or flaps shall be constructed of substantial and suitable materials approved by the commissioner of public safety and shall have a ground clearance of not more than  $\frac{1}{5}$  of the distance from the center of the rearmost axle to the center of the flaps under any conditions of loading operation of the motor vehicle. They shall be at least as wide as the tires they are protecting. However, if the motor vehicle is so designed and constructed that the purposes of this section cannot be met, then, in the discretion of the commissioner of public safety, no such protectors or flaps shall be required. If said rearmost wheels are not adequately covered at the top by fenders, body or other parts of the vehicle, said protectors or flaps shall be extended to a point directly above the rearmost axle. Lamps or wiring shall not be attached to protectors or flaps, and any

reflectors or reflectorized material attached to or made a part of the protectors or flaps shall be in addition to the reflectors required by law on the vehicle.

Missouri: Trucks, semi-trailers and trailers — except utility trailers — without rear fenders, attached to a commercial motor vehicle registered for more than 24,000 lbs. shall be equipped with mud flaps for the rear wheels when operated on the public highways of this state. If mud flaps are used, they shall be wide enough to cover the full tread width of the tire(s) being protected; shall be so installed that they extend from the underside of the vehicle body in a vertical plane behind the rear wheels to within 8” of the ground; and shall be constructed of a rigid material or a flexible material that is of a sufficient character to provide adequate protection when the vehicle is in motion. No provisions of this section shall apply to a motor vehicle in transit and in process of delivery equipped with temporary mud flaps, to farm implements, or to any vehicle that is not required to be registered

Montana: All trucks, truck-tractors, trailers or semi-trailers moved on the highways of Montana shall be equipped with fenders, splash aprons or flaps designed, constructed and attached to the rearmost wheels or set of wheels so as to arrest and deflect dirt, mud and water, rocks and other substances that may be picked up and thrown into the air by the rear wheels. If the vehicle is in excess of 8,000 lbs. gross vehicle weight, such fenders, splash aprons, or flaps shall extend downward to a point that is not more than 10” above the surface of the highway when the vehicle is empty.

Nebraska: Every new motor vehicle or semitrailer purchased after Jan. 1, 1956, and operated on any highway in the state must be equipped with fenders, covers or devices, including flaps or splash aprons, unless the body of the vehicle affords adequate protection of effectively minimizing the spray or splash of water or mud to the rear of the motor vehicle or trailer.

Nevada: Mud flaps must be suspended behind the rear wheels on vehicles or combinations weighing more than 26,000 lbs.

New Hampshire: Every vehicle operated in or upon in any way — when not equipped with proper fenders to prevent the throw, spray, or splash of water, dirt, or other matter — shall be equipped with suitable fender guards or flaps that shall effectively reduce the throw, spray or splash likely to be emitted from any wheel or tire. Said flaps or guards required shall be of a type and size prescribed and approved by the director.

New Jersey: Trucks, buses, full trailers or semitrailers of a registered gross vehicle weight more than 3 tons, must be equipped with metal protectors or substantial flexible flaps behind the rearmost wheel before operating on the highways. If there is not fender, body or other protection over the top of the wheel, some suitable protection must be provided. The flaps or other devices should substantially reduce the amount of dirt, water or other materials thrown on windshields of following vehicles. This rule applies to all vehicles entering New Jersey as well as resident vehicles.

New Mexico: No mud flap requirements for commercial motor vehicles.

New York: Splash guards and stone deflectors will be required on all vehicles unless the vehicle has been designed so that water and other road substances will not be thrown to the rear of the vehicle. The splashguards and stone deflectors must be fairly rigid, and the distance from the lower end to the ground must not exceed 1/3 of the distance from the bottom of the splash guard to the point of contact of the rear wheel. Farm vehicles, trailers and semi-trailers will be exempt from this ruling when they are registered as a farm vehicle.

North Carolina: No mud flap requirements for commercial motor vehicles.

North Dakota: No mud flap requirements for commercial motor vehicles.

Ohio: Wheel protectors (mud flaps) are required on all commercial vehicles, trailers or semitrailers more than 6,000 lbs. gross vehicle weight. The protectors or mud flaps should have a ground clearance of not more than 1/3 of the distance from the center of the rearmost axle to the center of the flaps under any conditions of loading and shall be at least as wide as the tires they are protecting.

Oklahoma: All vehicles or combinations of vehicles not equipped with fenders over the rearmost wheel must have mud flaps or splashguards (a rubber or fabric apron) attached directly behind the rearmost wheels and hanging perpendicular from the body of the vehicle. The mud flaps or splashguards must be of such a size to prevent the bulk of water or any other substance picked up from the roadway from being thrown from the rear wheel at tangents exceeding  $22 \frac{1}{2}^{\circ}$  measured from the road surface.

Oregon: All fender and mud guards must be of sufficient size so that the fender or mudguard extends at least to each side of the width of the tire or combined width of the multiple tires when measured against the cross section of the tread of the wheel or the combined cross sections of the treads of the multiple wheels. Fenders and mud guards must be of sufficient size and must be so constructed as to be capable at all times of arresting and deflecting any dirt, mud, water or other substance that may be picked up and carried by the wheels. Fenders or mud guards must: extend in full width from a point on the wheels that is above and forward of the center of the tires over to a point at the rear of the wheels that is not more than 10", or, if attached to the rear of a dump box that elevates for unloading, not more than 13" above the surface of the highway when the vehicle is empty; must extend downward in full width from a point behind the wheels that is not lower than halfway between the center of the wheels and the top of the tires to a point at the rear of the wheels that is not more than 10" above the surface of the highway when the vehicle is empty; be within 5' of the tire tread of the tires on the last axle of a motor truck that has a registration weight of 8,000 lbs. or more, every trailer and commercial bus.



Pennsylvania: All commercial vehicles or combinations used on the highways must be constructed or equipped with mudguards to bar water or other substances from being thrown by the rear wheels at tangents exceeding  $22\frac{1}{2}^{\circ}$  from the road.

Rhode Island: All trucks, full trailers, or semitrailers with a registered gross vehicle weight of more than 3 tons must be equipped with suitable metal protectors or substantial flexible flaps behind the rearmost wheel. If the rear wheels are not covered at the top and rear by the fender, body or other parts of the vehicle, the rear wheels must be covered at the top and rear by protective means of a standard type of design that reduces the amount of dirt, water, or other materials thrown onto the windshields of following vehicles. The requirements listed above do not need to be followed if the vehicle is designed and constructed so that the fenders, body construction, or other means of enclosure accomplish the requirements listed above.

South Carolina: No mud flap requirements for commercial motor vehicles.

South Dakota No mud flap requirements for commercial motor vehicles.

Tennessee: No person shall operate upon a public highway or street any motor vehicle, including a separate truck-tractor (normally used in a tractor-trailer combination), or combination of vehicles having a carrying capacity in excess of 3,000 lbs., if such motor vehicle or combination of vehicles is not equipped with rear fender, mud flaps or mud guards as to substantially prevent the projection of rocks, dirt, water or other substances to the rear. Such fenders, flaps or guards shall be of a type approved by the commissioner of safety.

section shall have no application to farm vehicles, or vehicles used by farmers to haul produce from farm to market, nor shall it apply to vehicles used exclusively for hauling logs.

Texas: Safety guards or flaps are required on all trucks, trailers, or semi-trailers (in combination with a towing vehicle), if the rearmost axle of the vehicle (or combination) has four tires or more. They are not required on buses, pole trailers, motor homes, or truck-tractors. They shall be located and suspended behind the rearmost wheels of such vehicle or, if in combination, behind the rearmost wheels of such combination to within 8" of the surface of the roadway. A tolerance of 4" will be allowed and shall be at least as wide as the tires they are protecting. They shall be of metal, rubber, rubberized material, or other substantial material, capable of remaining in place behind the rear wheels by their own weight while said vehicle is being operated, and will remain in the proper place behind the rear wheels and will be rigid enough to prevent slush, mud, or gravel from being transmitted from the vehicle's rear wheels to the windshield of the following vehicle. They will be securely mounted, as wide as the tire that being protected, not split or torn to the extent that they are ineffective, and the bottom edge of the safety guard or flap shall be no more than 12" from the surface of the roadway.

Utah: Mud guard and fender requirements apply to trucks with a gross vehicle weight rating of 10,500 lbs. or more and to any truck-tractor, trailer or semi-trailer with an unladen weight of 750 lbs. or more. Trucks, truck-tractors, trailers and semi-trailers (when at the rear of a combination of vehicles) are required to have metal protectors or flexible flaps behind the rear wheels to prevent most dirt, water, or other materials from being thrown by the wheels onto the windshields of following vehicles. The flaps must be at least as wide as the tire they're protecting and directly in line with the tire. If fenders, body construction, etc., perform the same service, no mud flaps are required.

Vermont: Trailers and semi-trailers must be equipped with metal protectors or substantial flexible flaps behind the rearmost wheels to prevent the wheels from throwing dirt, water, etc., on the windshields of following vehicles.

Virginia: With the exception of vehicles engaged in the hauling of log, and tractor trucks, all vehicles exceeding a licensed gross weight of 40,000 lbs. must be equipped in the rear with suitable mud guards or fenders capable of substantially preventing the projection of water, rocks, dirt, or other substances to the rear.

Washington: All motor vehicle, trailers and semitrailers shall be equipped with anti-spray devices on all axles as wide as the tires and extending downward to at least the center of the axle.

West Virginia: No mud flap requirements for commercial motor vehicles.

Wisconsin: Trucks and semi-trailers used in intercity movement, except when equipped with dump bodies, shall be equipped with either rear fenders or mud guards capable of restricting to a minimum the splashing of water, mud and other materials upon the windshields of following vehicles. Fenders and mud guards shall be at least as wide as the tire or multiple tires that they are protecting, and extend rearward and downward so that the fender or mud guard under any condition of loading, has a ground clearance of not more than 1/3 the horizontal distance from the center of the rearmost axle to the fender or mudguard. Exception: mud flaps are not required on vehicles or semi-trailers equipped with dump bodies

Wyoming: No mud flap requirements for commercial motor vehicles.