CLASS 293, VEHICLE FENDERS

SECTION I - CLASS DEFINITION

Devices attached to vehicles-such as automobiles, railway cars, or locomotives-for the purpose of removing persons and animals from the path of a moving vehicle or of catching and retaining the same or for receiving or fending off blows from other vehicles or objects.

SECTION II - REFERENCES TO OTHER CLASSES

SEE OR SEARCH CLASS:

114, Ships, subclasses 219+ for shipboard fenders.

280, Land Vehicles, subclasses 727+ for miscellaneous vehicle attachments resembling fenders (e.g., plant spreaders, dust and mud guards).

405, Hydraulic and Earth Engineering, subclasses 212+ for fenders for marine structures.

SUBCLASSES

1 MISCELLANEOUS:
This subclass is indented under the class definition. Devices not falling properly into any of the following subclasses.

2 WITH CAR CONTROL:
This subclass is indented under the class definition. Fenders interconnected in operation with car controlling elements.

(1) Note. During the reclassification of former subclasses 91+ of Class 180, Motor Vehicles, now subclasses 274+ thereof, it was not possible to review the art of this area (subclasses 2+) to determine if a conflict exists between the two areas.

SEE OR SEARCH CLASS:

180, Motor Vehicles, subclasses 274+ for a motor vehicle provided with a safety-promoting means which is responsive to the engagement of a portion of the perimeter (e.g., fender) of the vehicle with an external object, and see (1) Note of this subclass (2).

3 Cable grip:
This subclass is indented under subclass 2. The operation of the fender is concurrent with releasing device for a cable grip.

4 Electric circuit:
This subclass is indented under subclass 2. The fender operation is interconnected with an electric switch which relates to the control of the car movement.

SEE OR SEARCH CLASS:

180, Motor Vehicles, subclass 279 for a motor vehicle provided with a safety-promoting means which is responsive to the engagement of a portion of the perimeter (e.g., a fender) of the vehicle with an external object and wherein the response interrupts an electrical system of the vehicle or its motor, and see (1) Note of subclass 2 above.

5 Fluid brake:
This subclass is indented under subclass 2. Movable fender devices interconnected with the operation of a fluid brake system for the car.

SEE OR SEARCH CLASS:

180, Motor Vehicles, subclasses 275+ for a motor vehicle provided with a safety-promoting means which is responsive to the engagement of a portion of the perimeter (e.g., a fender) of the vehicle with an external object and wherein the response applies one or more braking devices on the vehicle, and see (1) Note of subclass 2 above.

6 Track brake:
This subclass is indented under subclass 2. The operation of a track or rail brake is connected up with the fender operation.

SEE OR SEARCH CLASS:

180, Motor Vehicles, subclasses 275+ as explained in the reference thereto appearing in subclass 5 above, and see especially subclass 276.

7 **Chock block:**
This subclass is indented under subclass 2. A wedge or chock block engages both the wheel and rail and is connected in operation with the fender.

8 **Wheel shoe:**
This subclass is indented under subclass 2. Brake shoes for the car wheels connected for operation with a fender.

SEE OR SEARCH CLASS:
180, Motor Vehicles, subclasses 275+ as explained in the reference thereto appearing in subclass 5 above.

9 **MOTOR ACTUATED:**
This subclass is indented under the class definition. Motors, usually pneumatic, for fender operation.

SEE OR SEARCH THIS CLASS, SUBCLASS:
5,

10 **Electric:**
This subclass is indented under subclass 9. Electric motors and electromagnets for fender operation and control.

11 **CAR AXLE-ACTUATED:**
This subclass is indented under the class definition. Driving connections from a car axis or wheel for fender operation. This does not include such devices for the rotary subclasses 17 to 20.

12 **DIRIGIBLE:**
This subclass is indented under the class definition. Devices under the control of the motorman for causing the fender to follow a curved track in a changeable angular relation to the car.

13 **Automatic:**
This subclass is indented under subclass 12. Automatic devices connected to the front truck of a car or knuckles of an automobile to laterally direct the fender.

14 **CAR AND TRUCK EQUALIZER:**
This subclass is indented under the class definition. The interconnection of the fender with the truck and car body is such as to eliminate excessive vertical oscillation of the fender.

15 **BODY TRAPS:**
This subclass is indented under the class definition. Boxes, gripping pads, and wings for catching and retaining a body.

16 **Lateral closure:**
This subclass is indented under subclass 15. Twin body-grasping members move in horizontal planes.

17 **ROTARY:**
This subclass is indented under the class definition. Rotary drums and rollers for engaging bodies and moving them to a safe position.

SEE OR SEARCH CLASS:
492, Roll or Roller, for a roll, per se, not elsewhere provided for, and see the notes thereunder.

18 **Diverging rolls:**
This subclass is indented under subclass 17. Two driven rolls which in plan form a V diverging from the front toward the rear.

19 **Horizontal wheel of vehicle width:**
This subclass is indented under subclass 17. Apparatus comprising a horizontal wheel arranged in front of the car and having a diameter substantially that of car-truck width.

20 **Endless belts:**
This subclass is indented under subclass 17. One or more endless body-engaging belts form all or a portion of the car fender.

21 **SIDE PROJECTOR:**
This subclass is indented under subclass 17. Oscillating or reciprocatory devices for positively moving bodies transversely and to one side of the track.

22 **Twin sections:**
This subclass is indented under subclass 21. except that a pair of projectors are used, one for each side of the track.

23 **Single tilter:**
This subclass is indented under subclass 21. except that a member arranged transversely of the vehicle end is designed to yield rearwardly at one end to effect the shunting of the body from the track.

24 **FORWARD PROJECTOR:**
This subclass is indented under the class definition. Fenders which are projected forwardly when a body is to be engaged.

SEE OR SEARCH THIS CLASS, SUBCLASS:
11,

25 **Spring-acutated:**
This subclass is indented under subclass 24. Fenders in which a spring power is used for projecting the fender forwardly.

26 **Plunger type:**
This subclass is indented under subclass 25. except that the fender is thrust forward by spring-actuated plungers, the spring being concentric with the plunger.

27 **LAZY TONGS:**
This subclass is indented under the class definition. Fenders of lazy-tongs form.

28 **REAR-SLIDE STORAGE:**
This subclass is indented under the class definition. Fenders which are adapted to slide rearwardly under a car platform to get them out of the way when not in use.

SEE OR SEARCH THIS CLASS, SUBCLASS:
24, 25, and 26.

29 **Folding upright:**
This subclass is indented under subclass 28. with the addition of a vertical foldable fender hinged to the sliding fender.

30 **DOUBLE-ENDER INTERCONNECTED:**
This subclass is indented under the class definition. Bumpers at opposite ends of a vehicle interconnected through their mounting means so that impact on one is absorbed by the mounting means of both.

SEE OR SEARCH THIS CLASS, SUBCLASS:
126, for bumpers extending entirely around a vehicle.

31 **DASH AND WHEEL:**
This subclass is indented under the class definition. A fender at the front of or on the dashboard of a car which may uphold a body and wheel-guard fender under a car platform. The dash fender usually controls the wheel-guard fender.

32 **Front-lift back drop:**
This subclass is indented under subclass 31. The front fender element lifts up usually by a body passing thereunder, which results in the tripping of the wheel fender, so that the body may be caught therein.

33 **Trip gate:**
This subclass is indented under subclass 31. A vertically depending trip gate is located between the dash and wheel fenders, so that a body not caught by the dash fender will operate the trip gate and drop the wheel fender.

34 **DROP FENDER:**
This subclass is indented under the class definition. A fender caused to drop to the lowered position by the operator working a hand lever or foot pedal.

SEE OR SEARCH THIS CLASS, SUBCLASS:
35,

35 **Trip gate:**
This subclass is indented under subclass 34. except that a depending trip gate controls the drop fender.

36 **Contact on fender:**
This subclass is indented under subclass 34. The drop fender is operated by direct contact with a body or through a contactor, such as a rope or trigger bar, connected to the front end of the drop fender.

37 Buffer trip:
This subclass is indented under subclass 34. Drop fenders having a body-contact trip, which is a buffer separate from the drop fender-that is, the buffer does not drop with the drop fender.

SEE OR SEARCH THIS CLASS, SUBCLASS:
31, and 32.

38 FRONT BARRIER:
This subclass is indented under the class definition. Fenders adapted to catch a body and a front barrier to retain the body, so that it will not fall from the front of the fender.

SEE OR SEARCH THIS CLASS, SUBCLASS:
15,

39 Tilting receiver:
This subclass is indented under subclass 38. The fender has a tilting floor or receiver which tilts downward toward the rear to retain the body.

40 Net tension-operated:
This subclass is indented under subclass 38. The fender has an inclined front net, which on receiving a body pulls up the front end of the fender to retain the body.

41 RELEASABLE UPRIGHT APRON:
This subclass is indented under the class definition. An upright apron drops toward the track or may be extended upwardly away from the track or may be expanded both upwardly and downwardly.

42 SCOOP TYPE:
This subclass is indented under the class definition. Fenders of general scoop type not otherwise classified.

43 Wheeled:
This subclass is indented under subclass 42. Fenders of scoop type carried at all times on wheels traveling on the rails.

44 Hinged:
This subclass is indented under subclass 42. Fenders of scoop type pivotally mounted at the rear or top.

45 Folding:
This subclass is indented under subclass 44. Hinged scoop fenders adapted to fold up in front of the vehicle.

46 Net roller:
This subclass is indented under subclass 44. Inclined-net folding fenders with a roller for winding up the net.

47 Swing-link:
This subclass is indented under subclass 42. Scoop fender supported by swinging links.

48 PILOT TYPE:
This subclass is indented under the class definition. Fenders of locomotive-pilot shape, usually intended to deflect the body to the side of the track.

49 Roller front:
This subclass is indented under subclass 48. The front of the fender is provided with loose rollers adapted to facilitate the passage of the body to the side of the track.

SEE OR SEARCH THIS CLASS, SUBCLASS:
124, for bar type buffers with rollers.

50 FOLDABLE SIDE WINGS:
This subclass is indented under the class definition. The fender is provided with wings adapted to be extended laterally from each side of the fender.

53 RAKE TOOTH:
This subclass is indented under the class definition. The body-engaging member is formed of a plurality of fingers or long teeth.

58 WHEEL TREAD:
This subclass is indented under the class definition. Individual wheel guards extending downwardly in front of each front wheel to clear objects from the path of the wheel.

SEE OR SEARCH CLASS:
172, Earth Working, subclasses 297 and 810+ for earth working apparatus which may include an earth working tool in front of a vehicle wheel.

102 BUFFER OR BUMPER TYPE:

This subclass is indented under the class definition. Devices being bumper means having an impact member comprising bars, plates, or other barrier structure attached to the vehicle body, frame, or other parts for the purpose of fending off blows from other vehicles or objects.

(1) Note. This and indented subclasses include combinations of claimed specific bumper structure and such vehicle structure (e.g., panel, door, etc.) which is modified specifically to accommodate the bumper or such vehicle structure with which a bumper otherwise has a specific cooperative relationship.

SEE OR SEARCH CLASS:

15, Brushing, Scrubbing, and General Cleaning, subclass 45 for carpet sweepers having bumper means attached thereto.

52, Static Structures (e.g., Buildings), subclasses 633+ for a grille, per se, consisting of either a perforated sheet, plural members held at spaced intervals, or a single elongated member shaped to define an area; and subclasses 656.8 and 716.5+ for an in situ attached channel or a trim strip.

165, Heat Exchange, subclass 98 for a radiator with an adjustable face covering means.

180, Motor Vehicles, subclass 68.6 for vehicles having radiator protectors. See also subclasses 274+ for a motor vehicle provided with a safety promoting means which is responsive to the engagement of a portion of the perimeter of the vehicle (e.g., fender) with an external object.

213, Railway Draft Appliances, subclass 9 for cushioned draft appliances combined with car end buffer means; and subclasses 220+ for car end bumpers of buffers.

267, Spring Devices, for fluid and other types of springs, as found, for example, in subclasses 116 and 139+, useful in the construction of a bumper for a vehicle.

280, Land Vehicles, subclass 481 for articulated vehicles having means by which one vehicle pushes another vehicle. Also see subclasses 415.1, 491.1+, 500+, and 505 for articulated vehicles having means which may include bumper structure or modification thereof for the purpose of interconnecting the vehicles. See subclass 770 for vehicle attachments designed to protect a particular part of the vehicle from externally caused damage.

103 Having means maintaining bumper distance above road:

This subclass is indented under subclass 102. Device having means for mounting the bumper means on a vehicle so that as the vehicle body moves vertically because of irregular road or ground conditions or because of acceleration or deceleration, a constant spacing is maintained between the road and said bumper means.

104 Vibration dampening type:

This subclass is indented under subclass 102. Device wherein the bumper means particularly constructed, either by inherent design or by the attachment of additional elements (e.g., spring), so that, as a unit, the bumper means tends to dampen shimmy or other undesirable vibration which develops in the moving vehicle.

105 For use on two or three wheel cycle:

This subclass is indented under subclass 102. Device particularly constructed for attachment to bicycles, tricycles, or motorcycles.

106 Having a storage compartment:

This subclass is indented under subclass 102. Device having container means for liquids, gases, or solids for transportation or storage and means for removing the contents of said container means.

SEE OR SEARCH THIS CLASS, SUBCLASS:

107+, for bumpers having means for containing a liquid in gas in the impact member for the purpose of absorbing an impact force on the bumper.

SEE OR SEARCH CLASS:

224, Package and Article Carriers, subclasses 489+ and 512+ for auxiliary luggage carriers attachable to bumpers.

107 Having fluid means within impact means to absorb energy:

This subclass is indented under subclass 102. Devices wherein the impact member has gas or liquid confined therein by a means which takes advantage of the properties of said gas or liquid to absorb the force of impact of said member.

SEE OR SEARCH THIS CLASS, SUBCLASS:

106, for bumpers having means which may be used for storing and transporting materials such as gases or liquids.

134, for bumpers having fluid shock absorbers interposed between the impact member and the vehicle structure.

108 Bumper guard:

This subclass is indented under subclass 107. Device in which the liquid or gas is confined in an additional force impact receiving means which is attached to the main force impact receiving means or to some other part of the vehicle and the function of the additional means is to protect a limited portion only of the main impact receiving means.

SEE OR SEARCH THIS CLASS, SUBCLASS:

115, 146+, and 149+, for structures which are an addition to the main impact member and which may also be directly impacted by other objects.

SEE OR SEARCH CLASS:

280, Land Vehicles, subclasses 500+ and 505 for impact bar guards designed to serve as trailer hitches.

109 Foam filled impact means:

This subclass is indented under subclass 107. Device in which the liquid- or gas-confining means is a cellular spongy material usually made from plastic, rubber, or like substances.

110 Compartmented impact means:

This subclass is indented under subclass 107. Device in which the gas or liquid is confined in relatively large isolated compartments or in compartments having means permitting flow of the gas or liquid between compartments to thereby absorb the force of impact.

111.1 With vehicle jack:

This subclass is indented under subclass 102. Device having, in combination therewith, jack means movable between an inoperative position and an operation position, for the purpose of lifting a vehicle, or a part thereof, off of the surface on which the vehicle is supported.

SEE OR SEARCH CLASS:

254, Implements or Apparatus for Applying Pushing or Pulling Force, subclass 133 for a vehicle jack wherein significance is attributed to the interface between the jack and the bumper and subclasses 418+ for a jack attached to a vehicle at a place other than the bumper.

280, Land Vehicles, subclass 763.1 for a land vehicle having an attached prop, support or stabilizer.

112 With means to deflect projected road debris:

This subclass is indented under subclass 102. Device having shields, plates, or other means attached thereto for the purpose of fending off stones and other matter thrown from the roadway by the vehicle when moving.

113 Having vehicle exhaust pipe receiving means or air scoop opening:

This subclass is indented under subclass 102. Device constructed with an opening therein which has the function either to provide a passage therethrough of (a) vehicle engine exhaust gases or the conduit carrying said exhaust gases or (b) air forced therethrough as the result of the motion of the vehicle through the ambient.

SEE OR SEARCH CLASS:

180, Motor Vehicles, subclasses 89.2, 296, and 309 for a motor vehicle provided with means for handling the exhaust of its motor.

114 With outrigger means extendable laterally from bumper:

This subclass is indented under subclass 102. Device having means which may be extended from the bumper and laterally beyond the confines of the vehicle body for the purpose of providing an outrigger to prevent overturning the vehicle.

SEE OR SEARCH THIS CLASS, SUBCLASS:

119, for a bumper impact member in which all or a section thereof may be moved in a horizontal place between a plurality of operative positions by means other than when impacted by another object.

115 With grille or radiator guard:

This subclass is indented under subclass 102. Device having attached thereto or integral therewith structure designed to be located forward of the vehicle radiator for the purpose of bending off objects which may otherwise damage said radiator.

SEE OR SEARCH THIS CLASS, SUBCLASS:

142+, for guards which may be attached to the bumper impact means for the purpose of protecting a portion of the bumper and which may extend beyond the vertical limits of said bumper.

SEE OR SEARCH CLASS:

52, Static Structures (e.g., Buildings), subclasses 633+ for vehicle grilles or radiator guards, per se.

116 Convertible:

This subclass is indented under subclass 102. Device which by adjustment or relative rearrangement of its parts, or by the addition or omission of a part, is so changed as to become basic subject matter of another class.

SEE OR SEARCH CLASS:

280, Land Vehicles, subclass 415.1 for articulated vehicles having bumpers which may be converted to towing means.

117 Combined:

This subclass is indented under subclass 102. Device combined with a device classified outside this class definition and not provided for in other classes or in other subclasses in this class.

(1) Note. In this subclass, for example, are combinations of bumpers with road brushes, bottle openers, switches, signs, lights, tool supports, etc.

SEE OR SEARCH CLASS:

40, Card, Picture, or Sign Exhibiting, subclasses 204+ for signs or license plates mounted on bumpers where bumper structure is not claimed beyond that necessary to mount the reflector.

70, Locks, subclasses 237+ for bumpers combined with means for locking the wheels against steering.

280, Land Vehicles, subclass 830 for bumpers combined with tank truck dispensing means and subclasses 500+ and 505 for land vehicles combined with bumpers which form or carry a hitch element for connecting another vehicle.

343, Communications: Radio Wave Antennas, subclasses 711+ for antennas combined with, having a part of or common with, a vehicle bumper.

359, Optical: Systems and Elements, subclasses 515+ for signal reflectors which can be mounted on a vehicle bumper where bumper structure is not claimed beyond that necessary to mount the reflector.

361, Electricity: Electrical Systems and Devices, subclasses 212+ for discharging or preventing accumulation of electric charge.

118 Shiftable between operative and inoperative positions other than by impact:

This subclass is indented under subclass 102. Device having impact members or portions thereof that may be (a) shifted between operative and inoperative position or (b) carried in two or more alternative positions relative to the vehicle.

(1) Note. The alternative positions include other than a normal impact position such as an extended packing guard position, a nonuse position including those permitting access to the vehicle or parts thereof behind the bumper, and those facilitating release of interengaged objects, positions close to the ground, or inverted positions involving more than a mere adjustment of the mounting means to bring the impact member into a desired permanent position.

(2) Note. Yielding or yieldably mounted bumpers that move only upon frontal impact with an object are classified elsewhere in this class.

SEE OR SEARCH THIS CLASS, SUBCLASS:

107+, 124, 129, and 132, for yielding or yieldably mounted bumpers that move only upon frontal impact with an object.

140, for bumper means mounted for vertical adjustment on the vehicle spring horn.

SEE OR SEARCH CLASS:

224, Package and Article Carriers, subclasses 495+ for combined tire carriers and movable section bumpers.

280, Land Vehicles, subclass 415.1 for bumpers which may be converted into towing means and subclasses 491.1+ for draft means on a vehicle which may be retracted and serve as a bumper.

119 Horizontally movable to plural operative positions other than by impact:

This subclass is indented under subclass 102. Device in which the impact member or a portion thereof is mounted on the vehicle so that it may be slid or swung horizontally and longitudinally of the vehicle from one operative position to another operative position by means other than when impacted by another object.

SEE OR SEARCH THIS CLASS, SUBCLASS:

114, for an impact member combined with an outrigger means which is extendable from the member to a position laterally of the vehicle.

120 Composite bumper:

This subclass is indented under subclass 102. Device in which the impact member is constructed of a plurality of diverse substances permanently and rigidly interconnected to form a unitary device.

SEE OR SEARCH THIS CLASS, SUBCLASS:

106, for a bumper impact member useable to store a material for transportation thereof.

107+, for bumper impact means wherein one of the diverse materials is capable of confining a gas or liquid for the purpose of absorbing the force of an impact.

142, for guards for bumper impact members which comprise a narrow strip of material attached to the bumper and extending longitudinally thereon which is designed to protect a small portion of the impact member against impact.

121 Covered metal bar:

This subclass is indented under subclass 120. Device in which one of the materials from which the impact member is constructed is a solid metallic bar and having a diverse material completely encasing said bar.

122 Hollow cylinder:

This subclass is indented under subclass 120. Device in which one of the materials from which the impact member is constructed is in the form of a tube.

123 Vertically extending only:

This subclass is indented under subclass 102. Device in which the impact member or members are exclusively vertical in orientation.

124 Flexible cord or coil spring:

This subclass is indented under subclass 102. Device having an impact member comprising chain, rope, wire, elongated rubber member, or coiled spring.

SEE OR SEARCH CLASS:
24, Buckles, Buttons, Clasps, etc., subclasses 115+ for cord and rope holders.

125 Having roller impact member:
This subclass is indented under subclass 102. Device wherein the impact member comprises rotatable means which is free to rotate when impacted.

SEE OR SEARCH THIS CLASS, SUBCLASS:
49, for fenders having rollers for guiding engaged bodies out of the path of the vehicle.

SEE OR SEARCH CLASS:
114, Ships, subclass 220 for roller fenders on ships.

126 Bumper extends along side of vehicle:
This subclass is indented under subclass 102. Device which is designed to fend a blow to the side of a vehicle to which it is attached.

(1) Note. Fore and aft end bumpers which merely project around the vehicle corner and are not attached to the sides are classified on other features.

SEE OR SEARCH CLASS:
52, Static Structures (e.g., Buildings), subclasses 716.5+ for an in situ attached channel or trim strip of more general application which may be disclosed or defined as used with a vehicle.
280, Land Vehicles, subclasses 847+ for rub strips and moldings combined with vehicle bodies and mudguards.
296, Land Vehicles: Bodies and Tops, subclass 41 for wear strips.

127 And completely encircles vehicle:
This subclass is indented under subclass 126. Device wherein the bumper means extends around both sides and ends of the vehicle.

128 For side of vehicle only:
This subclass is indented under subclass 126. Device which extends from the end bumper along the side of the vehicle body or mudguard and is attached to the vehicle side at least at one point.

129 Vehicle suspension spring absorbs force exerted on bumper:
This subclass is indented under subclass 102. Device being operatively connected to a suspension spring means for the vehicle whereby the shock force of a blow encountered by said bumper is dampened by said spring as said force is thereby transmitted to the vehicle body or frame.

SEE OR SEARCH THIS CLASS, SUBCLASS:
138, for bumpers mounted on the spring horn of a vehicle frame.

130 Single piece impact bar having plural loops in horizontal plane:
This subclass is indented under subclass 102. Device having a least one impact member which consists of a single elongated member having a loop or reverse bend located at each lateral extremity of the vehicle and wherein there is a single horizontal plane common to each bend.

131 Bumper having lever and shock absorber mount:
This subclass is indented under subclass 102. Device having lever or other pivoted link means by which an impact force, exerted against the bumper, is transmitted to a shock absorbing means intermediate said link and the vehicle body or frame.

132 Bumper having impact force absorbing means directly interposed between bumper and vehicle structure:
This subclass is indented under subclass 102. Device in which a shock dampening means is located intermediate the bumper impact member and the vehicle body, frame, or mudguard so as to attenuate the force which would be transmitted initially to the vehicle when the member impacts an object.

SEE OR SEARCH THIS CLASS, SUBCLASS:
131, for bumper having a lever and shock absorber mount.

133 One-shot type:
This subclass is indented under subclass 132. Device in which the usefulness of the shock-dampening means is destroyed as the result of its use in dampening the force of a single shock.

(1) Note. This subclass includes one-shot devices which may be restored to useable condition by an operator-actuated means only.

SEE OR SEARCH CLASS:
74, Machine Element or Mechanism, subclass 492 for one-shot type collapsible steering columns.
188, Brakes, subclasses 371+ for a plastically deformable impact absorber.
213, Railway Draft Appliances, subclass 1 for a one-shot shock absorber.

134 Fluid shock absorber type:
This subclass is indented under subclass 132. Device in which the shock-dampening means employs either a compressible fluid or the restricted flow of either a noncompressible fluid or compressible fluid as the medium by which the shock force is attenuated.

SEE OR SEARCH THIS CLASS, SUBCLASS:
107+, for bumpers in which the impact member contains a fluid for the purpose of absorbing the force of impact.

SEE OR SEARCH CLASS:
188, Brakes, subclasses 266+ for fluid type internal-resistance motion retarders.

135 Spring type:
This subclass is indented under subclass 132. Device in which the shock-dampening means employs the elasticity of a solid material as the means by which the shock force is attenuated.

SEE OR SEARCH CLASS:
267, Spring Devices, subclass 139 for a spring support means for a bumper where only the spring support is claimed.

136 Elastomeric:
This subclass is indented under subclass 135. Device in which the shock-dampening material is an elastic rubberlike substance such as a synthetic rubber or a plastic having some of the physical properties of rubber.

SEE OR SEARCH CLASS:
267, Spring Devices, subclass 140 for elastomeric support means for a bumper where only the support is claimed.

137 Coil spring:
This subclass is indented under subclass 135. Device in which the shock-dampening material is in the form of a spiral.

138 Bumper mounted on vehicle spring supporting frame member (i.e., spring horn):
This subclass is indented under subclass 102. Device having mean attaching the bumper to the curved side frame of the vehicle to which the end of the vehicle suspension spring is attached.

SEE OR SEARCH THIS CLASS, SUBCLASS:
129, for a bumper mounted so that the suspension spring for the vehicle is also the shock absorbing means for the bumper.

139 Sectional- or wing-type impact bar:
This subclass is indented under subclass 138. Device in which the impact member of the bumper comprises two or more sections in horizontal alignment, said sections may or may not be connected.

SEE OR SEARCH THIS CLASS, SUBCLASS:
149+, for sectional- or wing-type impact bars.

140 Vertically adjustable:
This subclass is indented under subclass 138. Device having means whereby the impact member may be secured in place at one of several possible vertical locations in a plane substantially normal to the ground or in an arc about a horizontal axis.

SEE OR SEARCH THIS CLASS, SUBCLASS:

103, for bumpers having means which automatically maintain the impact member at a given distance vertically above the ground as the vehicle moves.

118, for bumper impact means mounted on the vehicle for movement between operative and inoperative positions.

141 Bumper attached to vehicle mudguard:

This subclass is indented under subclass 102. Device having means to attach the bumper means to the fender or mudguard, or the bracket therefor, which extends over the vehicle wheel.

SEE OR SEARCH THIS CLASS, SUBCLASS:

126+, for bumpers which extend along the side of a vehicle body and which may be attached to the vehicle mudguard.

SEE OR SEARCH CLASS:

280, Land Vehicles, subclasses 847+ for land vehicle mudguards.

142 Bumper guard:

This subclass is indented under subclass 102. Device comprising a main horizontally extending impact means and additional impact-receiving means, attachable to said main impact means or to some other vehicle structure, to protect a limited portion only of the entire area of said main impact means against impact by other objects.

(1) Note. The additional impact means may have greater height than width and may extend beyond the vertical limits of the main impact means.

SEE OR SEARCH THIS CLASS, SUBCLASS:

108, for bumper guards having gas or liquid therein for the purpose of absorbing the force of impact thereon.

115, for bumpers having additional impact means attached thereto and which extend vertically of the bumper as a means to protect the vehicle radiator.

146+, for vertically spaced impact bars having means interconnecting said bars which is not intended as a guard means for said bars.

149+, for sectional main impact receiving bumper means having means which may lay in the plane of impact merely to interconnect the sections and not as protection therefor.

SEE OR SEARCH CLASS:

280, Land Vehicles, subclasses 500+ and 505 for impact bar guards designed to serve as trailer hitches.

143 Increases vertical area of bumper:

This subclass is indented under subclass 142. Device in which the additional impact-receiving means extends vertically beyond the upper or lower extremities of the main horizontally extending impact means.

(1) Note. The vertically extending means has greater height than width and is less than the length of the main horizontally extending impact member which it protects.

144 With horizontal member:

This subclass is indented under subclass 143. Device having horizontally extending means which is spaced vertically from the main impact means and which is supported in place by the vertically extending impact means.

145 Spring or pivotally mounted:

This subclass is indented under subclass 143. Device in which the bumper guard has spring means in the guard or in its attachment to the main impact means or in which the bumper guard may have means whereby it may pivot relative to its support.

(1) Note. The guards in this subclass may be pivoted so that objects may be removed therefrom, to permit access to other parts of the vehicle, etc.

SEE OR SEARCH THIS CLASS, SUBCLASS:

150, for bumpers having horizontally extending sections which may be mounted to pivot about a vertical axis.

146 Plural impact bars vertically spaced in impact plane:
This subclass is indented under subclass 102. Device having more than one horizontally extending impact bar means arranged in a vertical impact plane so that one bar means is spaced above another bar means.

(1) Note. Clamps for joining vertically spaced impact bars are in this and indented subclasses except when they are used or structured for other specific functions, e.g., bumper guards.

SEE OR SEARCH THIS CLASS, SUBCLASS:
144, for clamps used as bumper guards with vertically spaced impact bars.

147 Impact bars intersect in the impact plane:
This subclass is indented under subclass 146. Device in which a plurality of the vertically spaced impact bar means are designed to lay in a crossed relation in the impact plane.

(1) Note. The bars may or may not be interconnected at point where crossed.

148 Impact bars connected at center to support member:
This subclass is indented under subclass 146. Device in which a plurality of the spaced impact bar means are connected with a support member, such as a backing bar, approximately at the midpoint between the lateral extremities of the impact bar means.

149 Sectional- or wing-type impact bars:
This subclass is indented under subclass 102. Device having impact bar like means made up of two or more sections in horizontal alignment, said sections may or may not be connected.

SEE OR SEARCH THIS CLASS, SUBCLASS:
139, for a sectional- or wing-type bumper mounted on the vehicle spring horn.

150 End section pivotable upon impact:
This subclass is indented under subclass 149. Device wherein the impact sections of the bumper located relative the lateral extremities of the vehicle are mounted either to the vehicle or another section of the bumper for pivotal motion about a vertical axis upon impact of said section with another object.

(1) Note. Bumpers in which the pivotally mounted section may break away or otherwise become disengaged from its support after having swung a predetermined arc are included herein.

SEE OR SEARCH THIS CLASS, SUBCLASS:
118, for a bumper in which the impact member or a portion thereof may be moved between operative and inoperative positions by means other than impact means.

SEE OR SEARCH CLASS:
16, Miscellaneous Hardware (e.g., Bushing, Carpet Fastener, Caster, Door Closer, Panel Hanger, Attachable or Adjunct Handle, Hinge, Window Sash Balance, etc.), subclasses 277+ for spring hinges, per se.

151 Having means to interconnect sections:
This subclass is indented under subclass 149. Device having means by which said impact sections are interconnected.

(1) Note. Included in this subclass are those bumpers in which the means interconnecting the impact sections is offset from the impact plane of said impact sections usually to accommodate mounting a spare tire or the like.

152 Interconnect means lies in bumper impact plane:
This subclass is indented under subclass 151. Device in which the means interconnecting the impact sections is itself in the impact plane of the impact sections.

153 Overlapping bar portions:
This subclass is indented under subclass 152. Device in which the impact sections are overlappingly connected to form a continuous impact member.

154 End connections:

This subclass is indented under subclass 102. Device having means connecting the extreme ends of the impact member and the supporting structure for said impact member.

(1) Note. End connectors, per se, are in this subclass where the sole disclosed use is with a vehicle bumper.

SEE OR SEARCH THIS CLASS, SUBCLASS:

146+, for plural vertically spaced impact members having end connections with support means.

155, for other joints and connections.

155 Joints and connections:

This subclass is indented under subclass 102. Device having means by which the bumper assembly may be connected to the vehicle frame, body, or other vehicle structure, or means by which various parts of the bumper assembly may be connected together.

SEE OR SEARCH THIS CLASS, SUBCLASS:

154, for connection by which the extreme ends of the impact member are connected to its support means.

SEE OR SEARCH CLASS:

24, Buckles, Buttons, Clasps, etc., subclasses 115+ for cord and rope holders and subclasses 455+ for clasps.

248, Supports, subclasses 200+ for bracket-type supports of general utility.

403, Joints and Connections, appropriate subclasses for joints of general application.

END