

### C. Open Cargo Bed

49 CFR 523.5(a)(3) provides that a vehicle that transports property on an open bed is a light truck. However, this section contains no minimum dimension for how small an open bed may be before a vehicle can no longer be classified as a truck on that basis. Some new vehicle designs include relatively small open cargo beds or cargo beds that transform easily into passenger carrying compartments.<sup>23</sup> While these vehicles are designed for transporting cargo as well as people, it may be possible to differentiate between those more likely to be used in utilitarian fashion by specifying a minimum dimensional requirement for the cargo bed.

The Society of Automotive Engineers (SAE) Recommended Practice J1100, for example, provides a means for calculating the cargo volume of open bed trucks. The SAE formula (V5) uses a standard measure of the interior length of the bed, the interior width of the bed (width at floor plus width at wheelhouse divided by two), and the height of the cargo area (from the cargo floor to the uppermost point on the side of the bed). Measured in this fashion, most small ½ ton pickup trucks in today's market have a cargo volume of approximately 40 cubic feet. A number of truck configurations, particularly those with "crew cabs," have smaller beds whose cargo volumes are approximately 30 cubic feet.

Using SAE Recommended Practice J1100 it is also possible to calculate the cargo area of open bed trucks. According to the cargo volume calculation specified in J1100, the area of an open cargo bed can be obtained by multiplying the interior length of the bed by the interior width of the bed. Measured in this fashion, most small ½ ton pickup trucks in today's market have a cargo area of approximately 3,500 square inches. A number of truck configurations, particularly those with "crew cabs," have smaller beds whose cargo areas can be as small as 3,100 square inches.

The agency seeks comment on whether cargo volume, cargo area, or some other measure, might be an appropriate means for determining when an open bed vehicle should be classified as a car or a truck and what minimum dimensions should be used to differentiate between passenger cars and

light trucks. We also invite comment on what cubic foot or square inch minimum could be specified for cargo carrying capability that would still provide manufacturers with sufficient design flexibility to build open bed vehicles that meet certain market needs, including vehicles with "crew cabs" or other extended cabs, necessary to provide both passenger carrying and cargo carrying capability. We are also interested in comments addressing other measurement criteria that would enable vehicles with "crew cabs" and extended cabs to be classified as light trucks.

### D. Off-Highway Operation

Congress directed that the characteristics of vehicles capable of off-highway operation be established through regulations promulgated by NHTSA. 49 CFR 523.5(b) sets out the definition of an automobile capable of off-highway operation. Following the definition contained in § 32901 of Chapter 329, the regulation considers an automobile as being capable of off-highway operation if it has either 4-wheel drive or a GVWR above 6,000 pounds and meets four out of five characteristics.

The characteristics are: (A) an approach angle of not less than 28 degrees; (B) a break-over angle of not less than 14 degrees; (C) a departure angle of not less than 20 degrees; (D) a running clearance of not less than 20 centimeters; and (E) front and rear axle clearances of not less than 18 centimeters each. As NHTSA observed in the Notice of Proposed Rulemaking introducing these criteria, the dimensions were derived from examining the characteristics of off-road vehicles manufactured in the mid-1970's (41 FR 55368, 55371; December 20, 1976).

Four-wheel drive, found almost exclusively on larger trucks when the CAFE program was established, is now found on vehicles of all shapes and sizes. As technological advances have made four-wheel drive more suitable for use on smaller vehicles and easier for drivers to use, it is now appearing more frequently on sedans and station wagons as well as light trucks.<sup>24</sup> Some of these vehicles are classified as passenger cars for CAFE purposes while others have been classified as light trucks. As applied to passenger cars, four-wheel

drive is intended to improve on-road performance in adverse weather and these vehicles do not have sufficient ground clearances for off-highway use. By itself, four-wheel drive is now far less indicative of whether a vehicle is likely to be used off-highway than it was when EPCA was enacted.

In the current fleet of utility vehicles that are classified as trucks for CAFE purposes because of their off-road attributes, the physical characteristics of the vehicles vary significantly. Approach angles, for example, vary from approximately 26 to 72 degrees. Departure angles range from approximately 14 to 42 degrees, while break-over angles range from 14 to 27.5 degrees. Axle clearances, for both axles and running clearance, also vary substantially.<sup>25</sup> Changing the definitions of the angles might serve to distinguish better the characteristics of vehicles currently used off-road from those currently used primarily on the public roads. Doing so, however, might also create the incentive to build vehicles meeting the new dimensions. Because amended dimensions are likely to lead to vehicles with higher centers of gravity, altering them might generally increase rollover risks and additional harm due to rollover crashes.

A different approach might be to modify 49 CFR 523.5(b) to provide that vehicles meeting certain individual qualifying criteria, or certain combinations of them, be classified as a light truck. For example, a vehicle that meets both the approach and departure angle criteria and any two out of the remaining three criteria (break-over angle, axle clearance or running clearance) might be less likely to be derived from a car. Having sufficiently large approach and departure angles are important for off-road vehicles when navigating steep and uneven terrain. Four-wheel drive vehicles derived from passenger cars are more likely to meet either the approach angle or departure angle criteria, but less likely to meet both.

## VII. Expanding the Application of the CAFE Program

As noted above, beginning with MY 1980, the NHTSA Administrator determined that the CAFE program should include vehicles with a GVWR of up to 8,500 pounds. Some groups have espoused increasing the application of the CAFE program to the statutory limit of 10,000 lbs. GVWR to

<sup>23</sup> For example, the Subaru Baja is an open bed vehicle that is built on the same platform as the Subaru Outback wagon. Although the Baja has all-wheel drive, it does not meet the criterion for classification as an off-road vehicle. It is classified as a truck on the basis of having an open bed slightly less than three and one-half feet long.

<sup>24</sup> A number of manufacturers, including Audi and others, produce four-wheel drive performance cars. At least one manufacturer, Subaru, exclusively produces four-wheel drive passenger cars. In recent years, Volvo produced a two-wheel and four-wheel drive station wagon where the two-wheel drive version was classified as a car and the four-wheel drive model was classified as a truck.

<sup>25</sup> Not surprisingly, vehicles with extreme off-road capability—such as the Hummer H1—are at the upper range of these dimensions, while utility vehicles aimed more for on-road use are at the lower end of the range of these dimensions.