

a supplemental control on the right side operated by the rider's right foot. For the front brake control, FMVSS No. 123 would continue to require a lever on the right handlebar in all cases.

If FMVSS No. 123 is amended in accordance with the first regulatory alternative, the present optional configuration allowed on motor-driven cycles (presently specified in FMVSS No. 123's Table 1, Column 2, Item 11) would become mandatory on any motorcycle without a clutch lever. Motorcycles without a clutch control include those with automatic transmissions, single speed motorcycles, and possibly in the future, motorcycles with manual transmissions but automatic clutches.

Regarding motorcycles with automatic transmissions, FMVSS No. 123 at S5.2.1 presently states: "If a motorcycle with an automatic clutch is equipped with a supplemental rear brake control, the control shall be located on the left handlebar." Under the first alternative proposal, this requirement would be modified because, on motorcycles with automatic transmissions, manufacturers may wish to provide a right foot control in addition to the left handlebar control for the rear brake. In effect, the brake control configuration for automatic transmission motorcycles would remain exactly the same as FMVSS No. 123 presently specifies, but the right foot control, rather than the left handlebar control, would be considered the supplemental control.

B. Second Alternative

For the second alternative, we propose a regulatory approach for the U.S. similar to what is already specified in European countries and in Japan. We propose that FMVSS No. 123 require that scooters without manual clutch levers have their rear brake control located on the left handlebar. This alternative would define "scooter" as a subset of motorcycles. We propose to use the "platform" on a motorcycle as the characteristic distinguishing "scooters" from "motorcycles." As further explained below, the ECE regulation allows the left handlebar location that we propose to require under this alternative. Specifying the left handlebar location for the rear brake control would maintain the highest degree of international harmonization.

1. How a "Scooter" Differs From Other "Motorcycles"

Scooters can be distinguished from other motorcycles by a number of design characteristics. First, they have a step-through frame architecture that leaves the space directly in front of the rider's

seat largely open to allow the rider to mount the seat without having to swing a leg over it. In contrast, other motorcycles almost always have their gas tanks and engines located in the space forward of the seat and have rigid frame members located there.

Second, scooters are characterized by having a platform or floorboard for the rider's feet built into the body structure. The platforms are in contrast with the foot pegs used on other motorcycles. Some other motorcycles may be equipped with individual platforms or floorboards for each of the rider's feet, but the individual platforms usually are not part of the body structure of the motorcycle as are the platforms on a scooter.

It is also noted that although they are usually smaller than full-size motorcycles, scooters often have engines generating more than five horsepower. Because they may exceed five horsepower, scooters may not qualify as "motor-driven cycles" as defined in 49 CFR part 571.3.

2. Advancing International Harmonization

Most of the scooter models which have been granted exemptions from FMVSS No. 123's rear brake control placement requirements are identical to scooter models sold in Europe and Japan. Currently, there is no regulatory or statutory definition in the Federal motor vehicle safety standards distinguishing scooters from other motorcycles. However, a relevant international regulation distinguishing scooters from other motorcycles is United Nations ECE Regulation No. 60, Addendum 59, which is the basis for national regulations concerning motorcycle controls in many European countries and Japan. ECE Regulation No. 60, Addendum 59 includes a definition of the term "platform" which means "that part of the vehicle on which the driver places his feet, when seated in the normal driving position, in the case that the vehicle is not equipped with riding pedals or footrests for the driver." The "riding pedals" refers to the pedals on mopeds, like those on bicycles, for propulsion. "Footrests" are defined in the ECE standard as "the projections on either side of the vehicle on which the driver places his feet when seated in the driving position," and they usually are in the form of foot pegs.

ECE Regulation No. 60, Addendum 59 allows a platform-equipped motorcycle, *i.e.*, a scooter, to have its rear brake controlled by a lever on the left handlebar if the scooter has an automatic transmission. If the scooter has a manual transmission, it must have

a foot control on the right side for the rear brake.

We note that ECE Regulation No. 60, Addendum 59 limits the use of a left handlebar lever for the rear brake to motorcycles which, in addition to having a platform, "have a maximum design speed not exceeding 100 km/h." One hundred kilometers per hour (or 62 miles per hour), once was a speed beyond the capability of most scooters, but today many scooters can exceed it. According to information provided by Honda Motor Co. and Aprilia, manufacturers in Europe and Japan are not required by the regulations of the individual nations in which they market their scooters to adhere to the 100 km/h maximum design speed portion of the requirement for placement of the rear brake control. The end result has been that scooters almost universally have their rear brake controls located on the left handlebars (since they also have automatic transmissions), even if they can attain speeds in excess of 100 km/h.

The approach taken in the second alternative describes motorcycles for which temporary exemptions for rear brake control placement were sought because the motorcycles were constructed to meet ECE Regulation No. 60, Addendum 59 (except for the 100 km/h maximum speed requirement). The approach taken in the second regulatory alternative would also achieve a measure of international harmonization with existing global regulations that has previously been lacking.

3. Supplemental Rear Brake Controls

Regarding supplemental rear brake controls, under the second alternative the present regulatory statement in S5.2.1 ("If a motorcycle with an automatic clutch is equipped with a supplemental rear brake control, the control shall be located on the left handlebar.") is still applicable because most motorcycles would continue to have a right foot pedal to control their rear brakes, and a supplemental rear brake control would be located on the left handlebar if no clutch lever was present, as FMVSS No. 123 requires at present. However, under this alternative, it would be necessary to specify that, if a platform-type motorcycle (scooter) with an automatic transmission has a supplemental rear brake control, it must be a right foot pedal. We have proposed this change in S5.2.1 of the draft regulatory language of the second alternative.