Eugene A. Blumkin, PE, CPE 47 Empire Dr, North Andover, MA 01845 gene.blumkin@advartec.com

U.S. Department of Transportation, 1200 New Jersey Avenue SE, West Building Ground Floor, Room W12–140, Washington, DC 20590–0001

Re: Docket No. NHTSA-2016-0031

Dear Sir/Madam:

I would like to provide my comments to the Proposed Rulemaking "Make Inoperative Exemptions; Vehicle Modifications to Accommodate People With Disabilities".

By way of introduction, I'm a graduate mechanical engineer who has been involved in the area of adaptive driving and vehicle modifications for people with disabilities for over thirty five years. I'm a Registered Professional Engineer (PE, Wisconsin), Certified Professional ergonomist (CPE) and a licensed Professional Driving Instructor (PDI, Massachusetts).

The opinions outlined below do not necessarily represent the opinions and positions of my employer (Commonwealth of Massachusetts) or any organizations I belong to (SAE, NMEDA, ADED) and are strictly my personal professional opinions.

In general, I do support granting the "Make Inoperative" exemptions requested by both Bruno and Enterprise.

In case of the exemption requested by Bruno, I do not have any comments. Based on my experience dealing with PMD transport devices manufactured by Bruno and other qualified companies, I believe the exemption should be the widest possible to provide people with disabilities with a variety of options for transporting their PMDs as long as any unavoidable safety concerns are minimized.

At the same time, proposed "Make Inoperative" exemption for rental companies require a more detailed discussion.

Enterprise requested an exemption relative to the knee bolster airbag removal (or disabling) in the vehicles rented by customers with disabilities.

Under Americans with Disabilities Act (ADA) and under other Federal and State laws and regulations, car rental companies are required accommodate their customers (renters) who are qualified people with

disabilities except in cases when providing such accommodations would present "undue hardship" to the company. All national car rental companies provide most common accommodations to their customers. One of the most common requests is for adaptive driving devices and controls, specifically primary driving controls for steering, accelerator and braking. The most common adaptive device for steering is so called "steering knob". The most common device for accelerator/brake is "hand control" that is the subject of requested exemption.

According to Russ Newton of SureGrip, who is a major supplier of hand control systems to rental companies, they currently supply left and right hand models of their push-rock hand control (SureGrip) to car rental companies. Hand control manufacturer identifies in advance the vehicles (in each class) that are appropriate for hand control installation. When a consumer makes a request to rent a specific class (group) vehicle with hand control, the rental company chooses the most appropriate vehicle in that class/group and installs that hand control in their own facility using factory certified technicians.

Though there are many different types of hand control systems currently available in US, only those two can be provided to renters. Manufacturer correctly asserts that their push-rock hand control closely approximates most other currently available hand control systems.

Installation of hand control requires disabling or, in most cases, removal of the knee bolster airbag that most of current vehicles are equipped with. This also requires installing of a shunt to prevent malfunctioning of passive safety systems. Other changes may include complete removal of vehicle interior panels and the brackets. That arguably diminish safety of the vehicle even further.

Upon return of the rental car the airbag and all other parts are reinstalled and/or re-connected.

Obviously, this procedure is costly, time consuming and requires special skills from a mechanic. Since the company cannot charge more for car with hand control, it loses money on every such rental.

1. Should rental companies be provided exemptions from the make inoperative prohibitions to make temporary vehicle modifications, permanent vehicle modifications, or both?

It is my opinion that rental companies should be allowed to make both temporary **and** permanent modifications to the vehicles for rent by people with disabilities. However, this exemption should only be granted if (1) it could be reasonably assured that the modifications are of appropriate type for person's specific disability, (2) equipment used has been manufactured and tested per applicable standards, regulations and guidelines (FMVSS, SAE, NMEDA, etc), and (3) all adaptive modifications are performed by factory trained and certified technicians.

First requirement is especially important for hand control installations since state licensing authorities do not usually precisely specify adaptive equipment in the license restrictions, but rather put it generically as "mechanical driving aids". And using hand control that is significantly different from what was originally recommended by a driver rehabilitation specialist possesses inherited safety risks.

Additionally, the company would have to prohibit adding a second driver without a disability to the rental contract.

2. Although Enterprise only asked NHTSA about the application of the make inoperative prohibition to disabling knee bolster air bags to accommodate installation of hand controls, should NHTSA provide a make inoperative exemption for other installations of adaptive equipment by rental companies?

If rental companies could satisfy conditions outlined in my answer to the first question, it is feasible that they could be granted a similar exemption for other types of adaptive equipment and modification.

But it is highly unlikely that rental companies could satisfy those for any of more sophisticated modifications. Nor would they be required to offer those as they would be qualified as "undue hardship" under ADA. One more obvious example would be the digital/servo driving controls (EMC, Paravan or similar) that could cost upward of \$100K to install.

3. If a temporary modification to install adaptive equipment causes a malfunction telltale to illuminate, should the rental company be allowed to disable the telltale?

In my opinion, a telltale should not be disabled. However a label on the dashboard and a special note in the rental agreement should describe the telltale source as well as the codes that might appear on OBD scanner.

4. Would NHTSA need to provide a make inoperative exemption for installation of hand controls?

Yes, it would. Installation of hand control by itself (regardless of the airbag situation) does arguably affect safety of the occupants.

5. Should rental companies need to request an exemption from NHTSA or should the exemption be provided automatically within the regulation?

The exemption should be provided automatically as long as the rental company meets the same requirements as other adaptive modifiers in the industry.

6. If rental companies are granted exemption by the regulation alone rather than on request to NHTSA, should rental companies be required to notify NHTSA of modifications to vehicles? If so, how often and what information should rental companies be required to provide?

The rental company should satisfy the same notification requirements as other adaptive modifiers.

7. Should rental companies be required to notify customers that a vehicle modified to accommodate the installation of adaptive equipment may have had devices or designs installed in compliance with an applicable FMVSS made inoperative?

Yes, the customers should be notified through labeling and adding appropriate language to the rental contract.

8. Should rental companies be required to retain records of vehicles modified pursuant to this "make inoperative" exemption. If so, what information and for how long?

Yes, detailed records should be retained in a manner similar to that required from other adaptive modifiers.

9. Should rental companies be required to notify subsequent renters and/or purchasers of rental vehicles that have been modified pursuant to this proposed "make inoperative" exemption that the vehicle was previously modified?

Not if all modifications have been reversed. The company would not be able to legally sell (or rent to a customer without a disability) a vehicle which, for example, does not have a knee bolster airbag. There could be very limited situations when a subsequent renter requires the same type of adaptive equipment that is currently installed on the vehicle. In that case, the notifications described in #7 should be provided.

10. What procedures could or should NHTSA require of rental companies to ensure the knee bolster air bag will be reenabled when the rental vehicle is returned and the hand controls are disabled?

First of all, the hand control will have to be physically removed and not just disabled. The rental company should follow the procedures for the airbag installation/reenabling provided by the vehicle and airbag manufacturers

11. To the extent car sharing companies (e.g., Zipcar) qualify as a "rental company" under 49 U.S.C. 30102, would all aspects of this proposal be reasonably applied to ride sharing companies, or would procedural requirements need to be different for them?

Car sharing companies should be subjected to the same procedural requirements to the extent these requirements would not constitute "undue hardship" within ADA meaning.

I sincerely hope that my comments would help to improve safety of rental companies customers with disabilities.

Respectfully submitted,

Eugene Blumkín

Eugene A. Blumkin