DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA-2018-0004; Notice 1]

Daimler Trucks North America, LLC, Receipt of Petition for Decision of Inconsequential Noncompliance

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Receipt of petition.

SUMMARY: Daimler Trucks North America, LLC (DTNA), has determined that certain model year (MY) 2013-2018 Thomas Built Buses do not fully comply with Federal Motor Vehicle Safety Standard (FMVSS) No. 222, *School Bus Passenger Seating and Crash Protection*. DTNA filed a noncompliance report dated November 27, 2017. DTNA in Collaboration with SynTec Seating Solutions, LLC "SynTec" (the seating manufacturer), subsequently petitioned NHTSA on December 15, 2017, and later updated it on September 21, 2018, for a decision that the subject noncompliance is inconsequential as it relates to motor vehicle safety. This document announces receipt of DTNA's petition.

DATES: The closing date for comments on the petition is **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: Interested persons are invited to submit written data, views, and arguments on this petition. Comments must refer to the docket number cited in the title of this notice and submitted by any of the following methods:

- Mail: Send comments by mail addressed to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE, Washington, DC 20590.
- Hand Delivery: Deliver comments by hand to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE, Washington, DC 20590. The Docket Section is open on weekdays from 10 am to 5 pm except for Federal Holidays.
- Electronically: Submit comments electronically by logging onto the Federal Docket Management System (FDMS) website at https://www.regulations.gov/. Follow the online instructions for submitting comments.
- Comments may also be faxed to (202) 493-2251.

Comments must be written in the English language, and be no greater than 15 pages in length, although there is no limit to the length of necessary attachments to the comments. If comments are submitted in hard copy form, please ensure that two copies are provided. If you wish to receive confirmation that comments you have submitted by mail were received, please enclose a stamped, self-addressed postcard with the comments. Note that all comments received will be posted without change to https://www.regulations.gov, including any personal information provided.

All comments and supporting materials received before the close of business on the closing date indicated above will be filed in the docket and will be considered. All comments and supporting materials received after the closing date will also be filed and will be considered to the fullest extent possible.

When the petition is granted or denied, notice of the decision will also be published in the **Federal Register** pursuant to the authority indicated at the end of this notice.

All comments, background documentation, and supporting materials submitted to the docket may be viewed by anyone at the address and times given above. The documents may also be viewed on the Internet at https://www.regulations.gov by following the online instructions for accessing the dockets. The docket ID number for this petition is shown in the heading of this notice.

DOT's complete Privacy Act Statement is available for review in a Federal Register notice published on April 11, 2000, (65 FR 19477-78).

SUPPLEMENTARY INFORMATION:

I. Overview: DTNA has determined that certain MY 2013-2018 Thomas Built Buses do not fully comply with paragraph S5.3.1.3 of FMVSS No. 222, *School Bus Passenger Seating and Crash Protection* (49 CFR 571.222). DTNA filed a noncompliance report dated November 27, 2017, pursuant to 49 CFR part 573, *Defect and Noncompliance Responsibility and Reports.* DTNA subsequently petitioned NHTSA on December 15, 2017, and later amended it on September 21, 2018, for an exemption from the notification and remedy requirements of 49 U.S.C. Chapter 301 on the basis that this noncompliance is inconsequential as it relates to motor vehicle safety, pursuant to 49 U.S.C. 30118(d) and 30120(h) and 49 CFR part 556, *Exemption for Inconsequential Noncompliance or Defect*.

This notice of receipt, of DTNA's petition, is published under 49 U.S.C. 30118 and 30120 and does not represent any agency decision or other exercise of judgment concerning the merits of the petition.

II. Buses Involved: Affected are approximately 3,222 MY 2013-2018 versions of the following Thomas Built Buses, manufactured between August 24, 2012, and May 1, 2017, specifically:

- Thomas Built Buses Saf-T-Liner C2
- Thomas Built Buses Saf-T-Liner EFX
- Thomas Built Buses Saf-T-Liner HDX
- Thomas Built Buses Minotour DRW

III. Noncompliance: DTNA explains that the noncompliance is that the subject buses are equipped with seats that have Type 2 (lap/shoulder) seat belts, manufactured by SynTec Seating Solutions, LLC (SynTec), that do not meet the head form force distribution impact requirement as specified in paragraph S5.3.1.3 of FMVSS No. 222. Specifically, the Type 2 seat belts include a plastic bezel, where the seat belt is routed through the seat, located within the head protection zone.

IV. Rule Requirements: Paragraph S5.3.1.3 of FMVSS No. 222, titled "Head form force distribution" includes the requirements relevant to this petition:

- When any contactable surface of the vehicle within the zones specified in paragraph S5.3.1.1 is impacted from any direction at 6.7 m/s by the head form described in paragraph S6.6, the energy necessary to deflect the impacted material shall be not less than 4.5 joules before the force level on the head form exceeds 667 N.
- When any contactable surface within such zones is impacted by the head form from any direction at 1.5 m/s the contact area on the head form surface shall be not less than 1,935 mm^2.

V. Summary of DTNA's Petition: DTNA described the subject noncompliance and stated its belief that the noncompliance is inconsequential as it relates to motor vehicle safety.

DTNA provided the following background information:

1. In January 2011, SynTec introduced the M2K lap/shoulder seat in order to provide a number of additional safety features to passengers. The company sold 2,272 M2K

lap/shoulder seats to Thomas Built Buses before discontinuing the product in 2012. SynTec then improved upon the M2K lap/shoulder seat design with the S3C seat, which the Company introduced in 2012. The back of these seats are substantially higher than earlier school bus passenger seats and are equipped with lap/shoulder seat belts. The seat also includes: color coding and key buckles to prevent improper buckling, a fixed buckle anchorage to prevent side occupant incursion, flip up buckles in pockets to be out of the way from debris, high shoulder anchorage, and contoured seat cushion. The plastic "bezel" (the location from which the lap/shoulder harness exits the seat back) was intentionally set high on the seat fronts to provide protection to the maximum range of occupants. Some M2K and S3C seats also are equipped with an integrated child seat.

2. To ensure that the Affected Seats complied with all laws and regulations, SynTec contracted with a third party, MGA Research Corporation ("MGA"), to conduct certification testing under FMVSS No. 222. Specifically, MGA conducted tests on the M2K seat in June 2011, and on the S3C seat in August 2012. The M2K and S3C complied with FMVSS No. 222 requirements with respect to the back of the seat. Consistent with the industry norm and MGA's past practice, MGA did not test targets on the front of the seat. Based on its interactions and conversations with MGA, SynTec understood that back seat-only testing represents the industry norm. Front of the seat testing is not conducted due to the low risk of harm from the front, and because the small head impact zone makes it impossible to conduct the test per the recommended test procedure. Indeed, as referenced above, the testing was designed to ensure that the back of the seat was an energy absorber and that various hazards

were eliminated from the top. Nonetheless, these early MGA tests results, specifically, the product's head injury criterion (HIC) values and the strong contact area and impact velocity scores on the back of the seat, highlighted the improved safety benefits of SynTec's new seat design.

In support of its petition, DTNA provided the following:

1. The S5.3.1.3 tests are outmoded for the front of the seat and the equipment's HIC scores represent the most accurate accounting of the seat's safety.
2. As highlighted above, the original intent of the contact surface test was to precipitate the elimination of metal grab bars and other hostile objects above the passenger seats that could come into contact with the occupant's head in the event of a crash. *See* 38 FR 4776 (Feb. 22, 1973) (Proposed Rule) (stating the goal of "eliminating exposed metal bars and similar designs and making the seat itself a significant energy absorber.") Likewise, the energy deflection analysis was designed to ensure that the seat would depress and distribute the force of impact in a manner that could not be achieved with exposed metal surfaces on the seat.
3. Although SynTec was noncompliant with these two tests, the requirements are now outmoded with respect to the front of the affected seats because the various hazards they are seeking to guard against no longer exist. Indeed, the noncompliance did not occur because of a hazard that the regulations were designed to protect against. Rather, as explained below, the noncompliance resulted from a high-placed bezel that actually makes the affected seats safer for more occupants. The two tests were crafted for a school bus seat design that was substantially different and less safe than the superior versions that exist in the market today.

4. Given that these tests are outmoded, the most accurate measure of head safety for the front of the seat is the product's HIC value. The HIC is the most widely accepted measure of head injury in use today. Indeed, it is the standard measure of head injury throughout the FMVSSs. *See*, e.g., FMVSS No. 201 and 208. Similarly, HIC is the metric used by NHTSA's New Car Assessment Program. *See* 80 FR 78522, 78533 (2015) (noting that the HIC value "is currently in use in FMVSS No. 208 and frontal NCAP tests.") The HIC measure is particularly valuable since it accounts for energy absorption and contact area by measuring the deceleration of the head form over time.
5. Over the past few years, both SynTec and NHTSA, internally and at accredited external test agencies, have conducted HIC testing on the front of the affected seats. During testing, the seats were positioned at various angles, and impacts were performed on multiple locations of the seat within the head protection zone "hits", including on the portion of the plastic bezel that protrudes into the top 76 mm on the front. These test results always produced a HIC value well below 1,000. For instance, since March 2017 SynTec has conducted 253 "hits" on the front of the seat. The average HIC value during these tests was 114.1, with a low score of 51.7 and a high HIC value of 311.8. Even the product's highest HIC value falls far short of the 1,000 maximum requirement. These values illustrate the safety of SynTec's product and the inconsequentiality of the noncompliance with the other FMVSS No. 222 test requirements.
6. Simply stated, the tests which prompted DTNA and SynTec's 573 Reports, are searching for hazards on the front of the seat that do not exist in the affected seats. *See* 38 FR 4776 (Feb. 22, 1973) (Proposed Rule). As the product's HIC values show, the technical

noncompliance of the SynTec seats on these two tests is not relevant to the product's safety. Accordingly, NHTSA should grant this petition for inconsequentiality.

7. The source of SynTec's noncompliance enhances the product's safety. SynTec's seats are safer than regulators could have envisioned in 1976. Indeed, the cause of the noncompliance, the location of the plastic bezel, renders the seat safer than it would be with a bezel that was not placed in the head protection zone. This higher positioning combined with higher seat backs provides a belt for a maximum range of occupants and keeps hard objects away from the most vulnerable passengers. SynTec utilized automotive best practices and BELFIT software from the Motor Industry Research Association to determine the optimum geometric place for the belt position. SynTec's objective was to provide maximum protection, taking into account the wide range of occupant sizes riding on a school bus. Based on this analysis, it placed the bezel at the higher portion of the seat. The position also allowed for more adjustment by the d-ring, for better torso restraint, and for a more comfortable fit (thereby encouraging use).
8. The higher shoulder harnesses also keep hard surfaces away from small occupants who are most vulnerable. A typical occupant in the vehicle would have a greater chance of coming into contact with a lower bezel. In seats with lap/shoulder belts with a lower bezel, the bezel would land in a smaller occupant's head area. Similarly, most designs that include an integrated child seat, have a hard surface that sits behind a smaller occupant's head. In contrast, the affected seat's higher bezel location places the bezel outside of a smaller occupant's head area. Likewise, for smaller occupants using integrated child seats, the bezel also falls outside of the occupant head area. Essentially, the higher bezel ensures better protection for the most vulnerable riders. Rather than

cause any safety issues, the noncompliance, which occurred because of the location of the plastic bezels, makes the affected seats safer.

9. The noncompliance at issue relates to front-of-seat tests designed to address features that are no longer present in school buses, such as metal bars at the top of seat backs and low seat backs. Therefore, DTNA believes the noncompliance is inconsequential as it relates to school bus safety. Moreover, the location of the plastic bezel on the lap/shoulder belts, which is the source of the noncompliance, is actually a safety improvement, in that its high position allows for maximum occupant ranges and fit, and protects the smallest seat occupants. A typical occupant in the vehicle would have a greater chance of coming into contact with a compliant lower bezel.
10. Thus, the design represents an enhanced level of safety for school bus occupants, especially younger passengers who are more vulnerable in the event of a crash. Consistent with the enhanced safety design of the lap/shoulder belt, DTNA is not aware of any complaints, injuries or reports of safety concerns regarding this issue.
11. **NHTSA Precedents** – DTNA notes that NHTSA has previously granted petitions for decisions of inconsequential noncompliance for a wide range of issues where a technical non-compliance exists, but does not create a negative impact on safety. In the case detailed within this petition, the lap/shoulder belt is an optional feature on the vast majority of school buses. When added, lap/shoulder belts increase the safety of the occupants as compared to a bus without passenger seatbelts. Also, the high bezel increases the child protection performance requirements by reducing the likelihood of an occupant coming into contact with the hard surface. The following examples are petitions for inconsequentiality that were granted by NHTSA and are described within

this petition to support DTNA's argument that, while technically non-compliant, NHTSA has previously granted inconsequentiality for cases where an additional level of safety above the requirements of the standard is provided.

12. *See* 70 FR. 24464 (May 9, 2005), Docket No. NHTSA 2005-20545 (Grant of Petition for IC Corporation) for an example of a petition for inconsequentiality that was granted by NHTSA. In this instance, school buses were manufactured that were not compliant with FMVSS 217, but it was deemed inconsequential because it did not compromise safety. "…The Agency agrees with IC that in this case the noncompliance does not compromise safety in terms of emergency exit capability in proportion to maximum occupant capacity, access to side emergency doors, visibility of the exits, or the ability of bus occupants to exit after an accident."

13. *See also 63 Fed. Reg. 32694 (June 15, 1998),* Docket No. NHTSA 98-3791 (Grant of Petition for New Flyer of America, Inc.) for another example of a petition for inconsequentiality that was granted. In this case, non-school buses were manufactured that were not compliant with FMVSS 217, but were granted inconsequentiality because the buses had additional safety features that were not required in the standard. The following quote is from NHTSA's notice granting the petition: "Thus, the buses have the minimum number of emergency exits required by FMVSS No. 217. However, these exits were not distributed properly. Instead of a second emergency exit on the right side, these buses have an additional roof exit. This additional roof exit would provide for much need emergency exit openings should the bus occupants need to evacuate due to a rollover incident. While this additional roof exit is not required by the standard, it does provide for an additional level of safety in the above situation. In consideration of the

foregoing, NHTSA has decided that the applicant has met its burden of persuasion that the noncompliance it described above is inconsequential to motor vehicle safety." Id.

DTNA expressed the belief that the subject noncompliance is inconsequential as it relates to motor vehicle safety, and that its petition to be exempted from providing notification of the noncompliance, as required by 49 U.S.C. 30118, and a remedy for the noncompliance, as required by 49 U.S.C. 30120, should be granted.

NHTSA notes that the statutory provisions (49 U.S.C. 30118(d) and 30120(h)) that permit manufacturers to file petitions for a determination of inconsequentiality allow NHTSA to exempt manufacturers only from the duties found in sections 30118 and 30120, respectively, to notify owners, purchasers, and dealers of a defect or noncompliance and to remedy the defect or noncompliance. Therefore, any decision on this petition only applies to the subject vehicles that DTNA no longer controlled at the time it determined that the noncompliance existed. However, any decision on this petition does not relieve vehicle distributors and dealers of the prohibitions on the sale, offer for sale, or introduction or delivery for introduction into interstate commerce of the noncompliant vehicles under their control after DTNA notified them that the subject noncompliance existed.

Authority: (49 U.S.C. 30118, 30120: delegations of authority at 49 CFR 1.95 and 501.8)

Otto G. Matheke III,

Director, Office of Vehicle Safety Compliance.

Billing Code 4910-59-P
[FR Doc. 2019-09753 Filed: 5/10/2019 8:45 am; Publication Date: 5/13/2019]