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DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA-2018-0010, Notice 2]

Spartan Motors USA, Inc, Denial of Petition for Decision of Inconsequential Noncompliance

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

ACTION: Denial of petition.

SUMMARY: Spartan Motors USA, Inc (Spartan), has determined that certain model year (MY) 2015-2019 Spartan Specialty MM and K2 motorhome chassis do not fully comply with Federal Motor Vehicle Safety Standard (FMVSS) No. 121, *Air Brake Systems.* Spartan filed a noncompliance report dated December 18, 2017, and subsequently petitioned NHTSA on January 15, 2018, for a decision that the subject noncompliance is inconsequential as it relates to motor vehicle safety. This document announces the denial of Spartan's petition.

FOR FURTHER INFORMATION CONTACT: Ahmad Barnes, Office of Vehicle Safety Compliance, the National Highway Traffic Safety Administration (NHTSA), (202) 366-7236, Ahmad.Barnes@dot.gov.

SUPPLEMENTARY INFORMATION:

I. Overview: Spartan has determined that certain MY 2015-2019 Spartan Specialty MM and K2 motorhome chassis do not fully comply with paragraph S5.1.2.1 of FMVSS No. 121, *Air Brake Systems* (49 CFR 571.121). Spartan filed a noncompliance report dated December 18, 2017, pursuant to 49 CFR part 573, *Defect and Noncompliance Responsibility and Reports*. Spartan subsequently petitioned NHTSA on January 15, 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 Defect or Noncompliance*.

Notice of receipt of Spartan's petition was published with a 30-day public comment period, on May 13, 2019, in the *Federal Register* (84 FR 20947). No comments were received. To view the petition and all supporting documents log onto the Federal Docket Management System (FDMS) website at https://www.regulations.gov/. Then follow the online search instructions to locate docket number "NHTSA-2018-0010."

II. Vehicles Involved: Approximately 414 MY 2015–2019 Spartan Specialty MM and K2 motorhome chassis manufactured between February 12, 2014, and December 11, 2017, are potentially involved.

III. Noncompliance: Spartan describes the noncompliance as a combined volume of air in the service and supply reservoirs in the air brake system is insufficient to meet the required minimum of twelve times the combined volume of air from all service brake chambers specified in paragraph S5.1.2.1 of FMVSS No. 121.

IV. Rule Requirements: Paragraph S5.1.2.1 of FMVSS No. 121, titled "*Air Brake Systems*," states that the combined volume of all service reservoirs and supply reservoirs shall be at least 12 times the combined volume of all service brake chambers.

V. Summary Spartan's of Petition: Spartan describes the subject noncompliance and states its belief that the noncompliance is inconsequential as it relates to motor vehicle safety because the air compressor in the subject vehicles has the capacity to replace the volume of air in the brake system in a relatively short space of time; brake applications for motorhomes appear to be less frequent than stop-and-go applications and the lower air capacity may not be noticeable to the driver nor impact braking performance; and completed subject vehicles are equipped with dual air gauges as well as a visual and audible warning system to alert the driver to a loss of air in the air brake system.

Spartan first calculates the air reservoir capacity necessary for its chassis to be compliant with FMVSS No. 121:

S5.1.2.1 of FMVSS 121, requires the combined volume of all service reservoirs and supply reservoirs to be at least 12 times the combined volume of all service brake chambers. The chassis affected by this condition are equipped with a T-24 brake chamber on the steer axle, T-30 brake chamber on the drive axle and T-16 brake chamber on the tag axle. In using the values in Table V of FMVSS 121, the cumulative air capacity of these brake chambers would be 404 [cubic inches]. Multiplying by 12, the needed air reservoir capacity would be 4848 [cubic inches].

Spartan also provides a table reflecting its calculations:

Brake Chamber Size	**FMVSS No. 121 Cu.In.[1] (Table V)**	**Number of Chambers Total Cu. In.**	**Total Cu. In.**
T-24	67	2	134
T-30	89	2	178
T-16	46	2	92

Total Chamber Cu. In.	404
Required Air Reservoir Capacity (using 12X Multiplier) Cu. In.	4848
Spartan Actual Reservoir Capacity (Cu. In.)	4674
Additional Capacity Needed (Cu. In.)	174

Paragraph S5.1.1 of FMVSS No. 121 specifies that a vehicle must be equipped with an air compressor of sufficient capacity to increase air pressure in the supply and service reservoirs from 85 psi to 100 psi when the engine is operating at the vehicle manufacturer's maximum recommended revolutions per minute (r.p.m.) within a time, in seconds, determined by the quotient ((actual reservoir capacity x 25)/required reservoir capacity). According to Spartan, under this paragraph, the subject vehicles would be required to have a compressor with enough

[1] Cu. In. = Cubic Inch

capacity to go from 85 psi to 100 psi within 24 seconds ((4674*25)/4848). Using the same equation and the required air reservoir capacity of 4848 cubic inches, the air pressure would need to increase from 85 psi to 100 psi within 25 seconds. However, Spartan contends that the subject vehicles can increase air pressure from 85 psi to 100 psi in less than 6 seconds, well within the requirement of 25 seconds. Further, Spartan states that the subject vehicles are configured so the compressor activates at a pressure set at, or greater than, the minimum requirement of 100 psi.

In Spartan's view, the impact of the noncompliance—having 3.5 percent less air reservoir capacity than required—when combined with the configuration of the activation pressure and the capacity of the compressor, "would appear to have an adverse consequence of a slight increase in air compressor cycling," but "this would be dependent on application of the service brakes." To this point, Spartan further submits that motorhomes (vehicles on which the noncompliant chassis here would be installed) have a similar duty cycle to tractor-trailers, where they are driven at highway speeds with infrequent brake applications. Spartan also notes that motorhomes also are largely driven from owner residences to campground locations throughout the traveling season. Accordingly, Spartan contends that brake applications here would appear to be less frequent than those in stop-and-go applications. Spartan therefore concludes that the noncompliant air capacity with a one-second time difference to increase air pressure may not be noticeable to the driver, and would not impact the braking performance of the vehicle. Spartan also contends that completed motorhomes subject to its petition are equipped with two air gauges that monitor the air system pressure in both system 1 and system 2. In addition to the air gauges, there is both a warning light and an audible alarm to alert the driver in the event of a low-air condition.

Based on these assertions, Spartan requests that its petition to be exempted from notice and remedy obligations under the Safety Act.

VI. NHTSA's Analysis: The burden of establishing the inconsequentiality of a failure to comply with a *performance requirement* in a standard—as opposed to a *labeling requirement*

with no performance implications—is more substantial and difficult to meet. Accordingly, the Agency has not found many such noncompliances inconsequential.[2]

In determining inconsequentiality of a noncompliance, NHTSA focuses on the safety risk to individuals who experience the type of event against which the recall would otherwise protect.[3] In general, NHTSA does not consider the absence of complaints or injuries as evidence that the issue is inconsequential to safety. The absence of complaints does not mean vehicle occupants have not experienced a safety issue, nor does it mean that there will not be safety issues in the future.[4]

Arguments that only a small number of vehicles or items of motor vehicle equipment are affected also do not justify granting of an inconsequentiality petition.[5] Similarly, mere assertions that only a small percentage of vehicles or items of equipment are likely to actually exhibit a noncompliance are unpersuasive. The percentage of potential occupants that could be adversely affected by a noncompliance is not relevant to whether the noncompliance poses an inconsequential risk to safety. Rather, NHTSA focuses on the consequence to an occupant who is exposed to the consequence of that noncompliance.[6]

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[2] *Cf. Gen. Motors Corporation; Ruling on Petition for Determination of Inconsequential Noncompliance*, 69 FR 19897, 19899 (Apr. 14, 2004) (citing prior cases where noncompliance was expected to be imperceptible, or nearly so, to vehicle occupants or approaching drivers).

[3] *See*, *e.g.*, *Gen. Motors, LLC; Grant of Petition for Decision of Inconsequential Noncompliance*, 78 FR 35355 (June 12, 2013) (finding noncompliance had no effect on occupant safety because it had no effect on the proper operation of the occupant classification system and the correct deployment of an air bag); *Osram Sylvania Prods. Inc.; Grant of Petition for Decision of Inconsequential Noncompliance*, 78 FR 46000 (July 30, 2013) (finding occupant using noncompliant light source would not be exposed to significantly greater risk than occupant using similar compliant light source).

[4] *See Morgan 3 Wheeler Limited; Denial of Petition for Decision of Inconsequential Noncompliance*, 81 FR 21663, 21666 (Apr. 12, 2016); *see also United States v. Gen. Motors Corp.*, 565 F.2d 754, 759 (D.C. Cir. 1977) (finding defect poses an unreasonable risk when it "results in hazards as potentially dangerous as sudden engine fire, and where there is no dispute that at least some such hazards, in this case fires, can definitely be expected to occur in the future").

[5] *See Mercedes-Benz, U.S.A., L.L.C.; Denial of Application for Decision of Inconsequential Noncompliance,* 66 FR 38342 (July 23, 2001) (rejecting argument that noncompliance was inconsequential because of the small number of vehicles affected); *Aston Martin Lagonda Ltd.; Denial of Petition for Decision of Inconsequential Noncompliance*, 81 FR 41370 (June 24, 2016) (noting that situations involving individuals trapped in motor vehicles—while infrequent—are consequential to safety); *Morgan 3 Wheeler Ltd.; Denial of Petition for Decision of Inconsequential Noncompliance*, 81 FR 21663, 21664 (Apr. 12, 2016) (rejecting argument that petition should be granted because the vehicle was produced in very low numbers and likely to be operated on a limited basis).

[6] *See Gen. Motors Corp.; Ruling on Petition for Determination of Inconsequential Noncompliance*, 69 FR 19897, 19900 (Apr. 14, 2004); *Cosco Inc.; Denial of Application for Decision of Inconsequential Noncompliance*, 64 FR 29408, 29409 (June 1, 1999).

NHTSA has reviewed Spartan's petition, and is denying the petition.

The purpose of FMVSS No. 121 is to ensure safe braking performance under normal and emergency conditions. Spartan states that it believes that the subject noncompliance is inconsequential to motor vehicle safety even though the air braking system falls short of the required capacity, in part contending that this deviation does not have an adverse effect on braking. Spartan contends that even with the insufficient system capacity, the onboard air compressor has the capacity to raise the system pressure from 85 psi to 100 psi in a short interval that is well under the timeframe specified in FMVSS No. 121. Based on this compressor capacity and the pressure at which the compressor activates, Spartan contends that the deficient system capacity would not be noticed under the conditions in which motor homes are used, or impact braking performance. Spartan also states that completed subject vehicles are equipped with gauges and a visual and audible warning system to alert the driver in the event of a loss of air in the system.

The Agency does not find Spartan's reasoning persuasive.

First, Spartan admits that there may be an adverse consequence of a slight increase in air compressor cycling as a result of the noncompliant air reservoir capacity. Spartan qualifies this by stating that whether there may be such an adverse consequence depends on the application of the service brakes. To this point, Spartan observes that brake applications in the subject vehicles "would appear to be less frequent than those stop and go applications," rendering the time difference to increase air pressure potentially unnoticeable by the driver and not impactful on braking performance. Spartan provided no additional information or data here to support this notion, however. Even assuming that brake application in the subject vehicles as described by Spartan is generally true, Spartan also did not provide evidence that such applications would be true of every affected vehicle. In addition, as a general matter, Spartan provided no test data to support the assertions in its petition. Furthermore, Spartan fails to acknowledge that unsafe

conditions could exist while the vehicles are driven under stop-and-go conditions which may increase the risk of crashes or injury.

Second, while Spartan observes that the completed subject vehicles are installed with air gauges to monitor air system pressure, as well as a warning light and audible alarm to alert drivers of a low air condition, Spartan does not explain how driver awareness of a low air condition would serve to mitigate the potential consequences of the noncompliance.

And third, that the system may meet or exceed FMVSS No. 121's requirements for the time in which the compressor can recharge the system does not excuse the failure to meet system capacity requirements. While compressor output may be such that lesser system capacity may appear unnoticeable in normal braking and in the "typical" use scenario put forward by Spartan, FMVSS No. 121 seeks to ensure motor vehicle safety in atypical and emergency use conditions as well. In some catastrophic failures—such as compressor and system valve failure—the presence of an adequate air reserve as required by S5.1.2.1 would provide critical braking capacity for these large vehicles. A vehicular crash is a potential consequence of an inadequate air reserve in the event that critical braking is required, and a recall would otherwise protect against such an event.

VII. NHTSA's Decision: In consideration of the foregoing, NHTSA has decided that Spartan has not met its burden of persuasion that the subject FMVSS No. 121 noncompliance is inconsequential to motor vehicle safety. Accordingly, Spartan's petition is hereby denied. Spartan is obligated to provide notification of, and free remedy for, that noncompliance under 49 U.S.C. 30118 and 30120.

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

Anne L. Collins,

Associate Administrator for Enforcement.

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