



March 30, 2021

NHTSA Campaign Number: 21C-001

Administrator  
National Highway Traffic Safety Administration  
1200 New Jersey Avenue, SE  
Washington, DC 20590

Cc: K. Adams-Campos – NHTSA (e-mail)  
D. Oaks – Combi USA  
S. Smith – Combi USA  
B. Hogan - DECA

Dear Administrator,

**Subject: Combi USA - Petition for Determination of Inconsequential Noncompliance**

I am a technical consultant working with Combi USA on compliance of child restraint systems under FMVSS 213 and submitting this petition on Combi's behalf.

Pursuant to 49 CFR Part 556 – Exemption for Inconsequential Defect or Noncompliance, Combi USA (Combi) hereby requests exemption from the notification and remedy requirements of the Safety Act for a noncompliance on the basis that the noncompliance is inconsequential to motor vehicle safety.

Combi determined that the BabyRide Infant Car Seats manufactured between 2016 and 2019 do not comply with S5.4.1.2(a) of Federal Motor Vehicle Safety Standard No. 213 (FMVSS 213) for minimum breaking strength of webbing used to secure a child on February 26, 2021. The noncompliance is limited to the 25 mm wide webbing used in the center front adjuster of the BabyRide Infant Car Seat. Combi reported that noncompliance to NHTSA in a Part 573 Report submitted through the NHTSA Recall Portal on March 5, 2021. The attached copy of that Part 573 Report provides additional details regarding the noncompliance, the model affected, and the quantity affected. The noncompliance reported in the Part 573 Report has been assigned the NHTSA Campaign Number: 21C-001.

**The petition information below is provided as required under 49 CFR Part 556.4(b):**

The information provided below is numbered in accordance with the numbering of the requirements in 556.4(b)

**(3.) Name and address of the applicant:**

Company Name: Combi USA, Inc.

Company Address:

15050 Choate Circle, Suite G  
Charlotte, NC 28273

Organization Type: C Corporation

State Company is organized: Illinois

**(4.) Description of equipment involved, production information, and noncompliance:**

a) Type of equipment: Child restraint system

b) Product information:

- i. Brand name: Combi USA
- ii. Model name: BabyRide Infant Car Seat
- iii. Model number: 378099
- iv. Number of units involved: 13,880
- v. Production dates: March 1, 2016 through September 2, 2019

c) Description of noncompliance for which an exemption is sought:

- i. The 25 mm wide webbing used as part of the harness system in the center front adjuster (CFA) fails to comply with the minimum initial breaking strength requirements of 11,000 N for webbing used to secure a child to a child restraint system specified in FMVSS 213, S5.4.1.2(a). The initial breaking strength of the 25 mm webbing has been reported by NHTSA in the 2020 DRAFT NHTSA Compliance Test Report No. 4642921-018 (copy attached; electronic file named "213-SGS-20-18 Combi BabyRide Draft Test Report") to be between 9,622 N and 10,136 N (median load 9,871 N) and in a recent test conducted for Combi USA by SGS in Test Report No. 4737580AL-1R-21 is reported as 9,278 N (copy attached; electronic file named "4737580AL-1R-21 (FMVSS webbing)").



**(5.) Information supporting Combi's petition:**

Combi considers this issue to be inconsequential to motor vehicle safety for the following reasons:

- a) Combi has not received any reports from consumers related to the strength of the 25 mm wide webbing in the BabyRide Infant Car Seat.
- b) The BabyRide with the 25 mm wide webbing at issue complies with dynamic testing requirements of FMVSS 213, S5.1 in testing conducted by both NHTSA and Combi between 2016 and 2019. This includes testing with the 12-month-old CRABI ATD that represents the heaviest child that the BabyRide Infant Car Seat is used with. See the test reports listed below (hard copies of all test reports are attached to this petition; electronic file names are included for electronic submissions).
  - i. 2016 - UMTRI Test Report No. TT 1601-06 (copy attached; electronic file named "TT1601-06REPORT 06-17-2016").
  - ii. 2018 - NHTSA Compliance Test Report No. 213-MGA-18-012 (copy attached; electronic file named "TRTR-645956-2018-001")
  - iii. 2019 - NHTSA Compliance Test Report No. 213-19-MGA-011 (copy attached; electronic file named "TRTR-646266-2019-001")
  - iv. 2020 - NHTSA DRAFT Compliance Test Report No. 213-MGA-20-015 (copy attached; electronic file named "213-MGA-20-015 Combi BabyRide Draft Test Report 09Feb21")
  - v. 2021 - UMTRI Test Report No. AG2101 (copy attached; electronic file named "AG2101Report 19Mar21")
- c) The actual webbing strength of the 25 mm wide webbing far exceeds the strength needed for the application of an infant car seat used with children 10 kg (22 lbs.) or less.
  - i. Load applied during dynamic testing
    1. When tested with the 12-month-old CRABI ATD that weighs 22lbs, representing the maximum weight occupant for the car seat, the maximum load that the 25 mm wide webbing is subjected to during an FMVSS 213 compliance crash test is 302.9 N. See the attached copy of UMTRI Test Report Number AG2101.
    2. Combi believes that the peak loading of the 25 mm wide webbing when dynamically tested per FMVSS 213 with the 12-month-old CRABI ATD and represented in the 2021 test conducted by UMTRI

in Test Report No. AG2101 represents maximum load applied to the 25 mm wide webbing in all Combi USA BabyRide Infant Car Seats. Combi bases that belief on the total belt load applied to the vehicle lap belt and LATCH belt recorded in the 2016 UMTRI and 2021 UMTRI testing with the 12-month-old ATD. The total vehicle lap belt load recorded in the 2021 test (AG2101) of 4206 N (945.6 lbs.) is consistent with the total vehicle lap belt and LATCH belt loading recorded in the 2016 tests conducted by UMTRI with the 12-month-old ATD of 4,067.2 N (851.4 lbs.) in Test TT1603 and 3,989.1 N (896.8 lbs.) in Test TT1604.

3. The maximum load measured in the 25 mm wide webbing in the BabyRide Infant Car Seat is much lower than the total load applied to the vehicle lap belt and LATCH belt as the car seat is for use rear-facing only and for use with a child weighing 10 kg (22 lb.) or less. In a rear-facing car seat, a significant portion of the load from the ATD during the dynamic test is transferred and supported by the seat back thus reducing the maximum load applied to the harness system including the 25 mm wide webbing.

ii. FMVSS 213, S 5.4.1.2(a) Minimum breaking strength of original webbing

1. The initial breaking strength of the 25 mm wide webbing in NHTSA and Combi testing is between 9,266 N and 10,126 N. See the attached copy of NHTSA Draft Test Report No. 4642921-018 and the attached copy of the Combi testing shown in the SGS Test report No. 4737580AL-1R-21.
2. Based on test reports collected in response to a NHTSA ODI request for information, all production testing for the 25 mm wide webbing from 2016 through 2019 measured between 9,600 N to 9,900 N. See attached Quality Control Test Reports from REMMERT SPA from 2016 through 2019. (Electronic file named "Combi BabyRide-REMMERT QC Testing 23Mar21").

iii. FMVSS 213, S5.4.1.2(b)(1) Webbing strength after abrasion

1. The breaking strength of the 25 mm wide webbing after abrasion in the Combi testing was an average of 8,047 N or 86.7% of the original breaking strength. See the attached copy of SGS Test report No. 4737580AL-1R-21.



2. As the breaking strength of the 25 mm wide webbing after abrasion is 86.7% of the original breaking strength, the webbing complies with requirements in S5.4.1.2(b)(1) of FMVSS 213 which requires the webbing have a breaking strength of not less than 75% of the new webbing strength.

iv. FMVSS 213, S5.4.1.2(c)(1) Webbing strength after exposure to light

1. The breaking strength after exposure to light of the 25 mm wide webbing tested by NHTSA averages 9,752 N or 98.8% of the original breaking strength. See the attached copy of NHTSA Draft Test Report No. 4642921-018.
2. As the breaking strength of the 25 mm wide webbing after exposure to light is 98.8% of the original breaking strength the webbing complies with requirements in S5.4.1.2(c)(1) of FMVSS 213 which requires the webbing have a breaking strength of not less than 60% of the new webbing.

d) FMVSS 213 regulates child restraint systems and the webbing used in those restraint systems for use with children weighing up to 36 kg (80 lbs.). The minimum strength requirements defined in S5.4.1.2 of FMVSS 213 for harness belts used in all child restraint systems for use with children 36 kg (80 lbs.) or less, including infant only restraint systems, are listed below.

i. S5.4.1.2(a) Minimum breaking strength for new webbing

1. Median breaking strength of not less than 11,000 N.

ii. S5.4.1.2(b) Minimum breaking strength after abrasion

1. Median breaking strength webbing after abrasion of not less than 75% of the new webbing strength. Based on the 11,000 N minimum strength for new webbing, at least 8,250 N after abrasion.
2. The median breaking strength of the 25 mm webbing used in the BabyRide after abrasion is 8,047 N, or 2.5% less than the minimum allowed for all child restraints, including those designed for children up to 80 lbs.

iii. S5.4.1.2(b) Minimum breaking strength after exposure to light

1. Median breaking strength after exposure to light of not less than 60% of the new webbing strength or based on the 11,000 N minimum strength for new webbing, at least 6,600 N after exposure to light.
2. The breaking strength of the 25 mm webbing used in the BabyRide is 47.7% greater than the minimum breaking strength allowed for all child restraints after exposure to light, including those designed for children up to 80 lbs.

Combi has reviewed the harness webbing specifications defined in FMVSS 213 and notes the following:

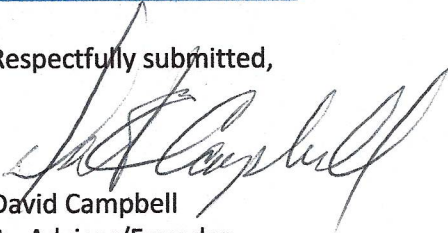
- i. Harness webbing as specified in FMVSS 213 is for webbing for use with children up to 80 lbs. (36 kg). The webbing specified is sufficiently strong to restrain an 80 lb. occupant when forward facing.
- ii. The BabyRide car seat is an infant car seat which is used rear-facing only with infants 22 lbs. (10 kg) or less. Rear-facing infant car seats provide restraint of the infant primarily by supporting infant's head and back on the seat back support surface of the restraint and additionally by the harness system. The loads carried by the seat back support surface significantly reduce the loading experienced by the harness webbing and center front adjuster webbing as shown in the UMTRI test AG2101. That load is significantly lower than the harness and center front adjuster webbing used in a forward-facing restraint system that is used up to 80 lbs.
- iii. Rear-facing use of the BabyRide car seat with children 22 lbs. or less will subject the harness belts and adjuster belt to only a small percentage of the load applied when forward-facing with an occupant weighing 80 lbs.
  1. During a rear-facing test, the test AG2101 shows that the maximum load applied to the 25 mm wide webbing was 302.9 N.

Combi believes that the initial minimum breaking strength of 11,000 N is much higher than the strength needed for a rear-facing car seat like the BabyRide even when occupied by a child at the maximum weight and that the 25 mm wide webbing used in the BabyRide exceeds the forces applied in a crash and thus concludes that the noncompliance of the webbing is inconsequential as it relates to motor vehicle safety.

Combi USA requests that NHTSA consider this petition and grant an exemption from the remedy and recall provisions of the National Traffic and Motor Vehicle Safety Act on the basis that the noncompliance described above is inconsequential as it relates to motor vehicle safety.

If you have any questions regarding this letter, please contact me at 330-304 -8020 or at [d.campbell@deca-inc.net](mailto:d.campbell@deca-inc.net) .

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David Campbell", is written over the typed name and title.

David Campbell

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