



January 7, 2022

Josh Neff, Chief  
Medium & Heavy-Duty Vehicle Defects Division  
Office of Defects Investigation  
National Highway Traffic Safety Administration  
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**SENT IN DUPLICATE VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED, AND EMAIL**

**RE: December 9, 2021, request for information about Defect Petition (DP21-004)**

Dear Mr. Neff:

Hyundai Translead provides the following information in response to the correspondence from the Office of Defects Investigation (“ODI”) of the National Highway Traffic Safety Administration (“NHTSA”), dated December 9, 2021, relating to ODI’s request for information about a Defect Petition regarding side underride guards.

Please find Hyundai Translead’s responses to your questions below. We have enclosed an attachment responsive to your requests with this letter and identified the attachment in the pertinent inquiry. Hyundai Translead’s responses are based on the information it has reviewed to date and reflect its current information and belief.

For your convenience, each request is restated verbatim and then followed by Hyundai Translead’s response.

**1. State by model year the number of subject vehicles Hyundai has manufactured for sale or lease in the United States since 2006. Include by model year the number of subject vehicles which were manufactured by Hyundai with side underride guards as original equipment.**

RESPONSE: In response to this inquiry, HYUNDAI TRANSLEAD provides the following information:

Order Year	Trailer Production	Trailers with Side Underride Guards
2006	14,499	0
2007	12,950	0
2008	6,541	0
2009	4,717	0
2010	7,629	0
2011	17,544	0
2012	22,487	0



2013	26,394	0
2014	33,733	0
2015	42,502	0
2016	48,136	0
2017	57,738	0
2018	58,773	0
2019	65,785	0
2020	34,563	0
2021	55,040	0
<b>Grand Total</b>	<b>509,031</b>	<b>0</b>

Hyundai Translead has not manufactured any subject vehicles or vehicles of any kind with side underride guards as original equipment. If Hyundai Translead identifies additional relevant information, it will supplement this response.

The source of this information was Joshua Beatty, Director of Sales Operations and Analytics, gathered through Allyson Christou, Lead Corporate Counsel. The last date this information was gathered was December 30, 2021.

**2. State the current or estimated number of Hyundai subject vehicles still in service for all model years.**

**RESPONSE:** 462,695

The source of this information was Joshua Beatty, Director of Sales Operations and Analytics, gathered through Allyson Christou, Lead Corporate Counsel. The last date this information was gathered was December 30, 2021.

**3. Please report Hyundai current percent of the subject vehicle market share.**

**RESPONSE:** Hyundai Translead's current market share is approximately 27.5% for 2021.

The source of this information was Joshua Beatty, Director of Sales Operations and Analytics, gathered through Allyson Christou, Lead Corporate Counsel. The last date this information was gathered was December 30, 2021.

**4. Provide a brief summary of any and all reports, claims, or other notices received by Hyundai, or of which Hyundai is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles or vehicles equipped with side underride guards.**

**RESPONSE:** Below is a list of claims and cases which relate to product liability claims regarding side underride guards:

The case of *The Estate of Allyson Davis, et. al. v. Hyundai Translead, et al. (Commonwealth of Kentucky, Boone Circuit Court, Case No. 20-CI-01291)* involves a motor vehicle accident on July 6, 2020. The November 12, 2020, Complaint, alleges the wrongful death of the driver would have been prevented had the impacted trailer been equipped



with side underride guards. This case is currently in the discovery phase of litigation.

The case of *Aserda Alherbi v. Hyundai Translead, et al.* (The District Court of Tarrant County Texas, Cause No. 017-323588-21) involves a September 1, 2020, motor vehicle collision. The plaintiff in that case has alleged in her February 23, 2021, Complaint that her injuries would have been prevented had the trailer been equipped with side underride guards. This case is currently in the discovery phase of litigation.

The case of *Irma Orive, et. al. v. Hyundai Translead, et. al.* (The United States District Court for the Southern District of Texas, McAllen Division, Civil Action No. 7:18-cv-00230) involved a wrongful death lawsuit filed on July 19, 2018, which alleged that the December 1, 2017, death of a driver would have been prevented had the trailer involved in the collision been equipped with side underride guards. The parties signed a stipulation for dismissal and dismissal was granted on October 16, 2019.

Allyson Christou, Lead Corporate Counsel, provided this information. Ms. Christou conducted a search of current internal legal department records, consulted with other business units regarding the existence of past records, and accessed electronic legal department records from 2017 onward. Because both Ms. Christou and Hyundai Translead's Corporate Counsel, the two attorneys that comprise Hyundai Translead's legal department, both came onboard with Hyundai Translead in the second half of 2021, neither have personal knowledge of cases other than those listed above. However, Ms. Christou has also initiated an inquiry with Hyundai Translead's current and past product liability insurance carriers regarding any past relevant cases and we are awaiting responses. This response will be updated with any additional relevant information that is discovered. The last date this information was gathered was January 7, 2021.

**5. Does Hyundai currently offer side underride guards as standard or optional equipment? If yes, is it a Hyundai design or from another supplier? If from another supplier, identify the supplier and provide their contact information.**

**RESPONSE:** Hyundai Translead will install a side underride guard as optional equipment if requested by the customer. The side underride guard that Hyundai Translead has tested for installation is the AngelWing guard. No customer has ordered a Hyundai Translead trailer with a side underride guard to date.

The source of this information was Les Jaworski, Director R&D Product Support, gathered through Allyson Christou, Lead Corporate Counsel, and the last date this information was gathered was January 7, 2022.

**6. Produce copies of all installation, service, warranty, and other documents that relate to, or may relate to, the subject component in the subject vehicles.**

**RESPONSE:**

- A. Hyundai Translead does not currently manufacture side underride guards. However, Hyundai Translead will install a third party guard if a customer orders a trailer with such a guard through Hyundai Translead. With respect to third party side underride guards, the installation manuals, service, and warranty documents are provided by the side underride guard manufacturer.
- B. Documents relating to Hyundai Translead's installation floor testing for the AngelWing guard are provided and named as "ATTMT ONE RESPONSE 6 AW INSTALLATION."



The source of this information was Les Jaworski, Director R&D Product Support, gathered through Allyson Christou, Lead Corporate Counsel, and the last date this information was gathered was January 7, 2022.

**7. Provide a brief summary of all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations that relate to, or may relate to the subject component that have been conducted, are being conducted, are planned, or are being planned by, or for, Hyundai.**

**RESPONSE:** Hyundai Translead has conducted the following assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations on side underride guards:

- A. From November 1, 2017, to December 13, 2017, a floor endurance test was performed on a dry freight trailer equipped with an AngelWing side underride guard to assess compatibility of the side underride guard with the structure of Hyundai Translead trailer. The result of the test indicated that the AngelWing is compatible with the Hyundai Translead trailer and does not have negative influence on performance of the floor structure and/or the side wall strength.

Hyundai Translead has not conducted, and does not currently plan to conduct any testing, other than the floor endurance test described above, on a third party manufactured side underride guard. Hyundai Translead generally does not conduct performance testing on materials from third party manufacturers.

- B. Hyundai Translead has received approximately three (3) inquiries from customers about side underride guards in the last ten (10) years. In response, Hyundai Translead has informed the customer that:
  - 1) Hyundai Translead does not currently manufacture a side underride guard.
  - 2) Hyundai Translead tested one side underride guard (AngelWing) to confirm that it could be installed on a Hyundai Translead trailer.
  - 3) That testing was limited to installation only.
  - 4) Since Hyundai Translead has not actually fulfilled an order with side guards, pricing and installation would be handled on a case-by-case basis.
- C. Hyundai Translead is developing a prototype side underride guard scheduled to be complete in the second quarter of 2022. This prototype side underride guard will be used for testing. Currently no tests or assessments exist yet, but calculations, Finite Element Analysis (FEA) reports, and initial concept Bill of Materials (BOM) drawings have been developed. Hyundai Translead's R&D Department is scheduled to conduct static and possibly dynamic testing later in 2022. Material shortages, shipping delays, and the like, may alter the testing schedule.

The source of this information was Joshua Beatty, Director of Sales Operations and Analytics; Les Jaworski, R&D Product Support; and Oscar Montiel, Senior R&D Engineer; gathered through Allyson Christou, Lead Corporate Counsel, and the last date this information was gathered was January 7, 2022.



**8. AngelWing is one aftermarket manufacturer of side underride guards. Please assess the compatibility of this product with Hyundai trailers. See the following link for additional information: <http://www.angelwingskirts.com>.**

**a. Effect, if any, this guard will have on the structural integrity of Hyundai trailers;**

**RESPONSE:** The AngelWing Guard appears to have no negative effect on structural integrity of the Hyundai Translead trailer.

**b. The approximate weight adding this side underride guard will add to Hyundai trailers;**

**RESPONSE:** AngelWing adds about 800 lbs. to the weight of the trailer.

**c. The approximate reduction in cargo carrying capacity adding this side underride guard will have on Hyundai trailers;**

**RESPONSE:** The installed AngelWing Guard will reduce trailer cargo capacity by about 800 lbs.

**d. Effect, if any, this guard will have on the durability and service life of Hyundai trailers;**

**RESPONSE:** It is unknown what effect, if any, this guard will have on the durability and service life of a trailer. No durability tests were performed on a trailer equipped with AngelWing side underride guards.

**e. The approximate cost, including materials and labor for installation of these guards both on new production and in-service Hyundai units;**

**RESPONSE:** The cost of the AngelWing set installed on the test trailer was \$3,233. This does not include cost of installation.

**f. Effect, if any, this guard will have on the maneuverability and operating environment compatibility of Hyundai trailers;**

**RESPONSE:** The guard reduces ground clearance under the trailer which might result in suspension and immobilization of the trailer on some railroad crossings.

**g. Your assessment of the effectiveness this side underride guard would have preventing injury and death of other roadway users when installed on Hyundai trailers; and**

**RESPONSE:** Testing conducted by IIHS indicates that the AngelWing side underride guard would prevent a colliding car from entering the space under the trailer when the colliding car is perpendicular to the trailer and the car crashing zone is effective in absorbing crash energy if the colliding car travels with the speed of 35 miles/hr. Hyundai Translead is not aware of other collision tests performed for different orientation of the colliding vehicle or results of such tests.

**i. (sic) Your assessment of any additional concerns, issues, or benefits this side underride guard may have.**



**RESPONSE:** Concerns include, without limitation:

- i. A necessary increase of the number of trailers on the roads due to reduced cargo-carrying capacity of the trailers, potentially increasing the number of traffic accidents.
- ii. The effect of sidewise bounce of the colliding vehicle back into traffic lanes and resulting in possible multi-car accidents.
- iii. The effect of immobilizing tractor-trailer combinations on railroad crossings, creating possible dangerous situations.

Benefits include, without limitation:

- i. Preventing a colliding car from entering the space under the trailer.

The source of this information was Les Jaworski, Director R&D Product Support, gathered through Allyson Christou, Lead Corporate Counsel, and the last date this information was gathered was January 7, 2022.

**9. Safetyskirt is one aftermarket manufacturer of side underride guards. Please assess the compatibility of this product with Hyundai trailers. See link for additional information: [Hyundai Translead](https://www.trailerguards.com/)<https://www.trailerguards.com/>**

- a. **Effect, if any, this guard will have on the structural integrity of Hyundai trailers;**
- b. **The approximate weight adding this side underride guard will add to Hyundai trailers;**
- c. **The approximate reduction in cargo carrying capacity adding this side underride guard will have on Hyundai trailers;**
- d. **Effect, if any, this guard will have on the durability and service life of Hyundai trailers;**
- e. **The approximate cost, including materials and labor for installation of these guards both on new production and in-service Hyundai units;**
- f. **Effect, if any, this guard will have on the maneuverability and operating environment compatibility of Hyundai trailers;**
- g. **Your assessment of the effectiveness this side underride guard would have preventing injury and death of other roadway users when installed on Hyundai trailers; and**
- i. **(sic) Please provide your assessment of any additional concerns, issues, or benefits this side underride guard may have.**

**RESPONSE:** Because Hyundai Translead has not conducted any assessment or tests on Safetyskirt products, it is not possible to answer questions regarding the effect on structural integrity, weight, cargo carrying capacity, effects on durability or service life, approximate costs, operability effects, or other assessments regarding effectiveness, benefits, or concerns. The information on the provided website alone does not allow for accurate answers to the above



questions.

The source of this information was Les Jaworski, Director R&D Product Support, gathered through Allyson Christou, Lead Corporate Counsel, and the last date this information was gathered was January 7, 2022.

**10. Furnish Hyundai's assessment of the following in today's transportation system:**

**a. The feasibility of side underride guards.**

**RESPONSE:** It is feasible to develop and install side underride guards.

**b. The industry financial cost of side underride guards;**

**RESPONSE:** Hyundai Translead does not have an estimate of the industry financial costs.

**c. The effectiveness side underride guards may have preventing traffic crash injuries and fatalities;**

**RESPONSE:** It is unknown how effective side underride guards may be in preventing or mitigating traffic crash injuries and fatalities. Hyundai Translead is not aware of any comprehensive study on which to base an assessment of how effective side underride guards may be in preventing or mitigating traffic crash injuries and fatalities.

Side underride guards may prevent a colliding car from entering the space under the trailer. Other factors that would need to be studied to determine the effect of side underride guards on traffic crash injuries and fatalities include, without limitation: 1) the increased number of trailers on the roads due to lower cargo carrying capacity; 2) sideways bounce into traffic lanes; and 3) reduced ground clearance of trailers with side underride guards, specifically with respect to railroad crossings.

**d. The potential changes in the US transportation system side underride guards may require; and**

**RESPONSE:** Hyundai Translead has not studied specific potential changes to the US transportation system. However, the factors that would need to be studied to determine any necessary changes include, without limitation: 1) the increased number of trailers on the roads due to lower cargo carrying capacity; 2) sideways bounce into traffic lanes; and, 3) reduced ground clearance of trailers with side underride guards, specifically with respect to railroad crossings.

**e. The reports included with this inquiry.**

**RESPONSE:** Hyundai Translead complies with federal rules and regulations governing the vehicles we manufacture. Without further large-scale studies, it is unknown how effective side underride guards are at mitigating crashes and fatalities. It is also unknown what other effects widespread use of side underride guards may have.

The source of this information was Les Jaworski, Director R&D Product Support, gathered through Allyson Christou,

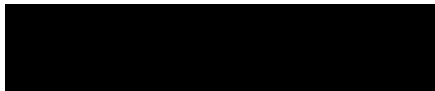


Lead Corporate Counsel, and the last date this information was gathered was January 7, 2022.

Should other information be obtained from the ongoing review of Hyundai Translead's files and records, Hyundai Translead will supplement this response.

If you have any questions with respect to any of the matters discussed in this letter or the materials attached, please contact me at (619) 680-3208 or at [allysonc@hyundaitranslead.com](mailto:allysonc@hyundaitranslead.com).

Sincerely,



Allyson Fenton Christou  
Lead Corporate Counsel

Encl: ATTMT ONE RESPONSE 6 AW INSTALLATION