



RUSSIA, AUSTRALIA, BAHAMAS, BOLIVIA, BRAZIL, BELIZE, CANADA, CHILE, TAIWAN, COLOMBIA, COSTA RICA, DOMINICAN REPUBLIC, ECUADOR, EL SALVADOR, TRINIDAD AND TOBAGO, UNITED STATES, URUGUAY, VENEZUELA, MEXICO, ARUBA, NICARAGUA, PERU, PUERTO RICO, Curaçao, GUAM, GUATEMALA, GUYANA, HAITI, HONDURAS, JAMAICA, KOREA, SOUTH KOREA, NEW ZEALAND, PANAMA, SOUTH AFRICA

**Countries:**

**Availability:** ISIS, FleetISIS, NotSIR

**Major System:** CAB / SLEEPER / HOOD

**Current Language:** English

**Other Languages:** [Français](#), [Español](#).

**Viewed:** 327

**Document ID:** IK1600247

**Revision:** 2

**Created:** 5/22/2018

**Last Modified:** 1/25/2019

**Author:** Steven Bautz

[Less Info](#)

Hide Details

Coding Information

Copy Link	Copy Relative Link	Bookmark	Add to Favorites	Print	Provide Feedback	Helpful	Not Helpful
		<a href="#">View My Bookmarks</a>				17	0

**Title:** Hood Gap and Alignment Tolerances

**Applies To:** LT/ProStar/8000, Eagle/9000, HV/WorkStar/7000, HX/PayStar, MV/DuraStar/4000

## CHANGE LOG

Please refer to the change log text box below for recent changes to this article:

01/25/2019 - Added MV/DuraStar/4000.  
 06/22/2018 - French and Spanish translation added  
 06/13/2018 - Initial Article Release

## DESCRIPTION

This document will guide the user through what the allowable gaps should be between the hood and the surrounding body parts once the hood has been properly installed as recieved from the factory or after being serviced in the field. The gaps are an important part of the overall vehicle appearance and should be maintained as outlined in this article.

Reference other iKnow articles that may be helpful when verifying the hood gaps are IK1600071 for 4000 Series, IK1600108 for LoneStar, and IK1600189 for 9000 Series.

## SYMPTOM(s)

1. Hood Gaps are too big or too tight.
2. The gap is not consistant from left to right or from top to bottom.
3. Body panels on either side of the gap are not flush.
4. A misaligned hood may cause unwanted rubbing and/or wear between body parts that will lead to damage to top coat finish.
5. A misaligned hood or improper gap may cause excessive noise/clapping during vehicle operation under certain conditions.

## Diagnostic Trouble Code(s) & Dashboard Indicator Light(s)

Not Applicable

## Customer Observations or Concerns

Hood gap & alignment to body panels are important for overall appearance and proper performance of the vehicle.

## SPECIAL TOOL(s) / SOFTWARE

Tool Description	Tool Number	Comments	Instructions
Tape Measure	obtain locally		
Wood/Plastic Block	obtain locally	Used to extend edges when measuring gap.	As shown in photos
Cotton or Latex Gloves	obtain locally	Use to protect top coat finish	

**SERVICE PARTS INFORMATION**

Not Applicable

**DIAGNOSTIC STEP(s)**

Not Applicable

**HOOD GAP INSPECTION STEP(s)**

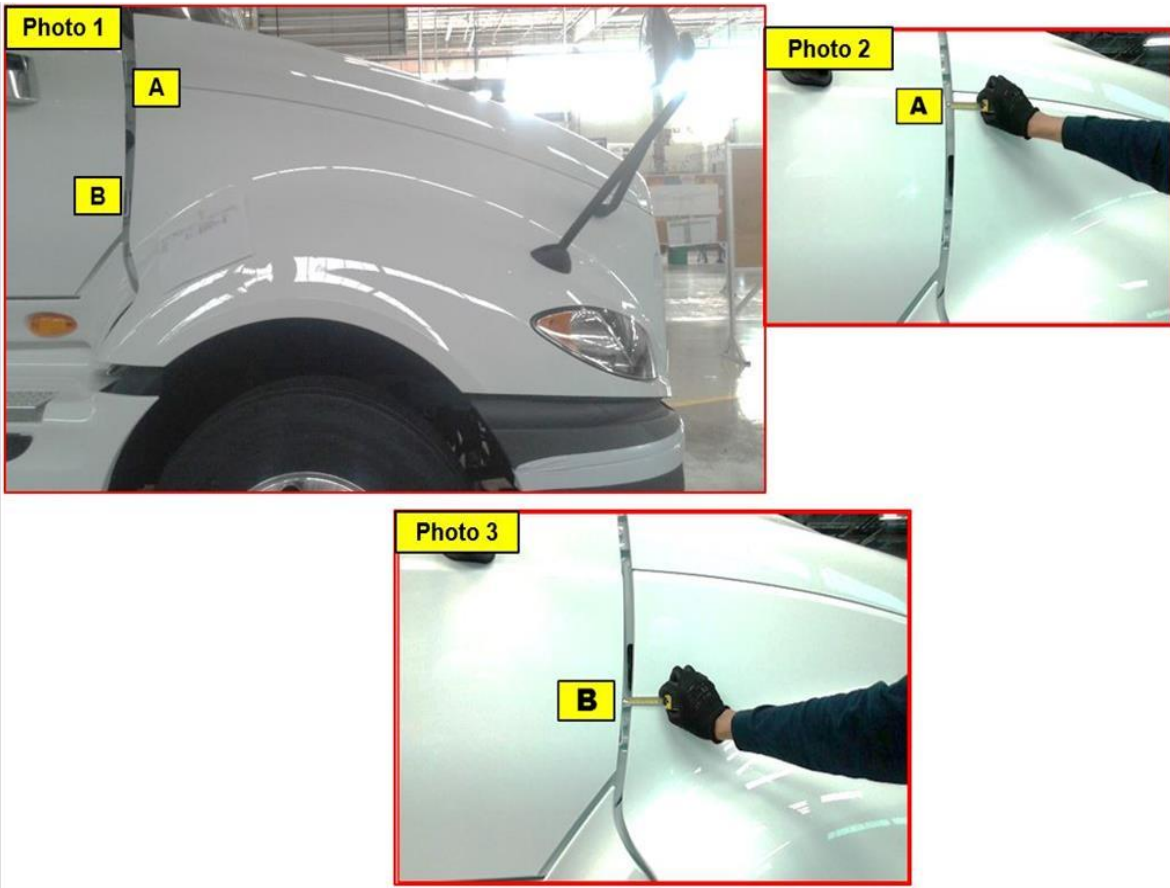
<b>CAUTION:</b>	
<b>Wear soft gloves and take care not to scratch or damage top coat finish.</b>	

**LT/ProStar/8000, MV/DuraStar/4000 - Review and Inspection of Hood Gap & Alignment Tolerances:**

Gap Location	Requirement	Comments
A	17mm - 29mm	See Figure 1, photos 1-2
B	17mm - 29mm	See Figure 1, photos 1-3
A to B Paralleism	4mm Max	Difference between A & B
Lt Side Gap vs Rt Side Gap	6mm Max	Difference between left & right sides

Measuring the hood to door gap. (Right side is shown, Left side is the same but opposite)  
 Measure at both Point A and Point B as shown in Figure1. Refer to Photos 2 & 3 in Figure 1 for measurement technique.

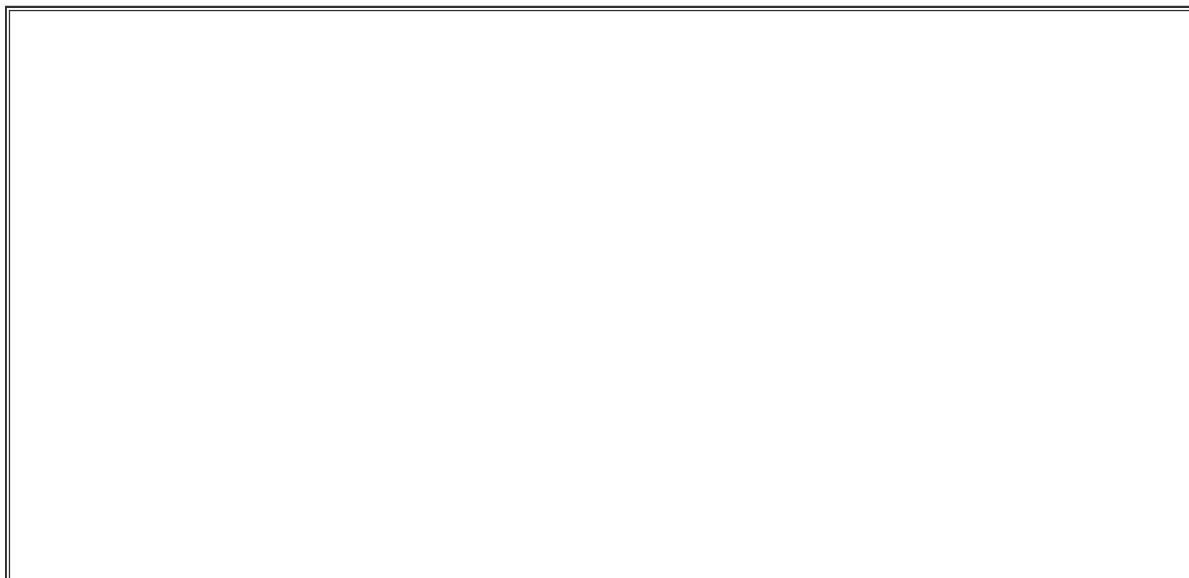


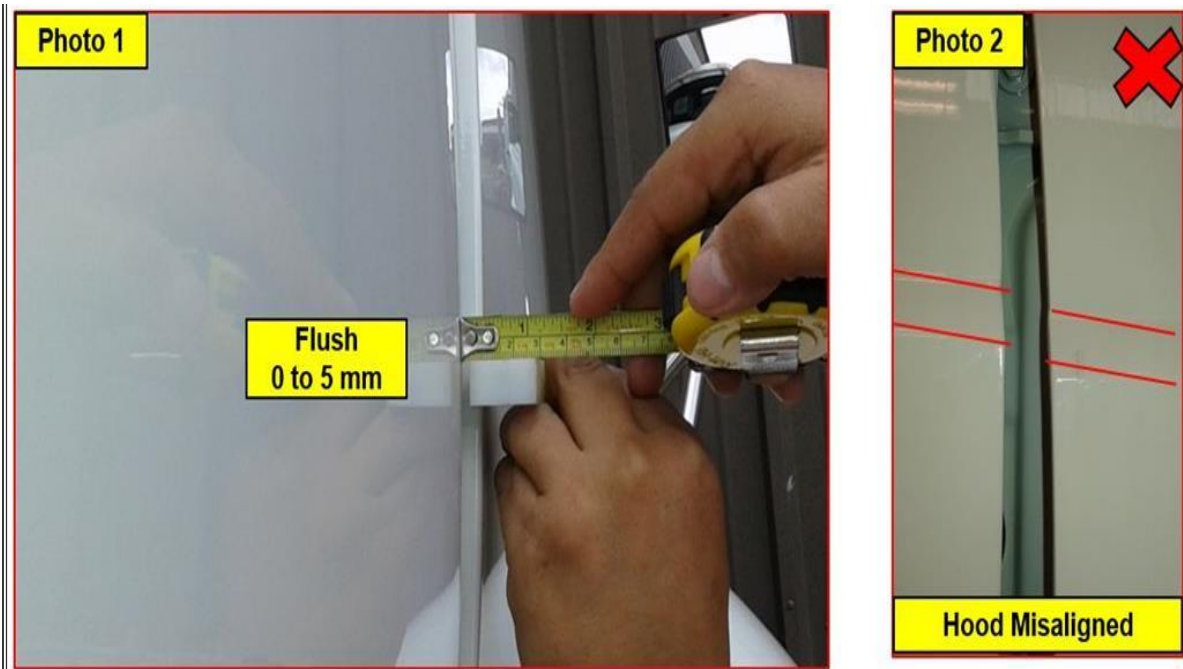


**Figure 1: LT/ProStar/8000 and MV/DuraStar/4000**

Photo 1: Overall view of right side gap showing Point A & Point B.  
 Photo 2: Measurement at Point A.  
 Photo 3: Measurement at Point B.

LT & MV Gaps Only	Requirement	Comments
Cab to Hood Flushness	0 - 5mm	See Photo 1 in Figure 2 below





**Figure 2: LT & MV Gaps Only - Flushness & Character Line**

Photo 1: Measuring Hood Flushness to Cab Door using plastic block & Tape Measure

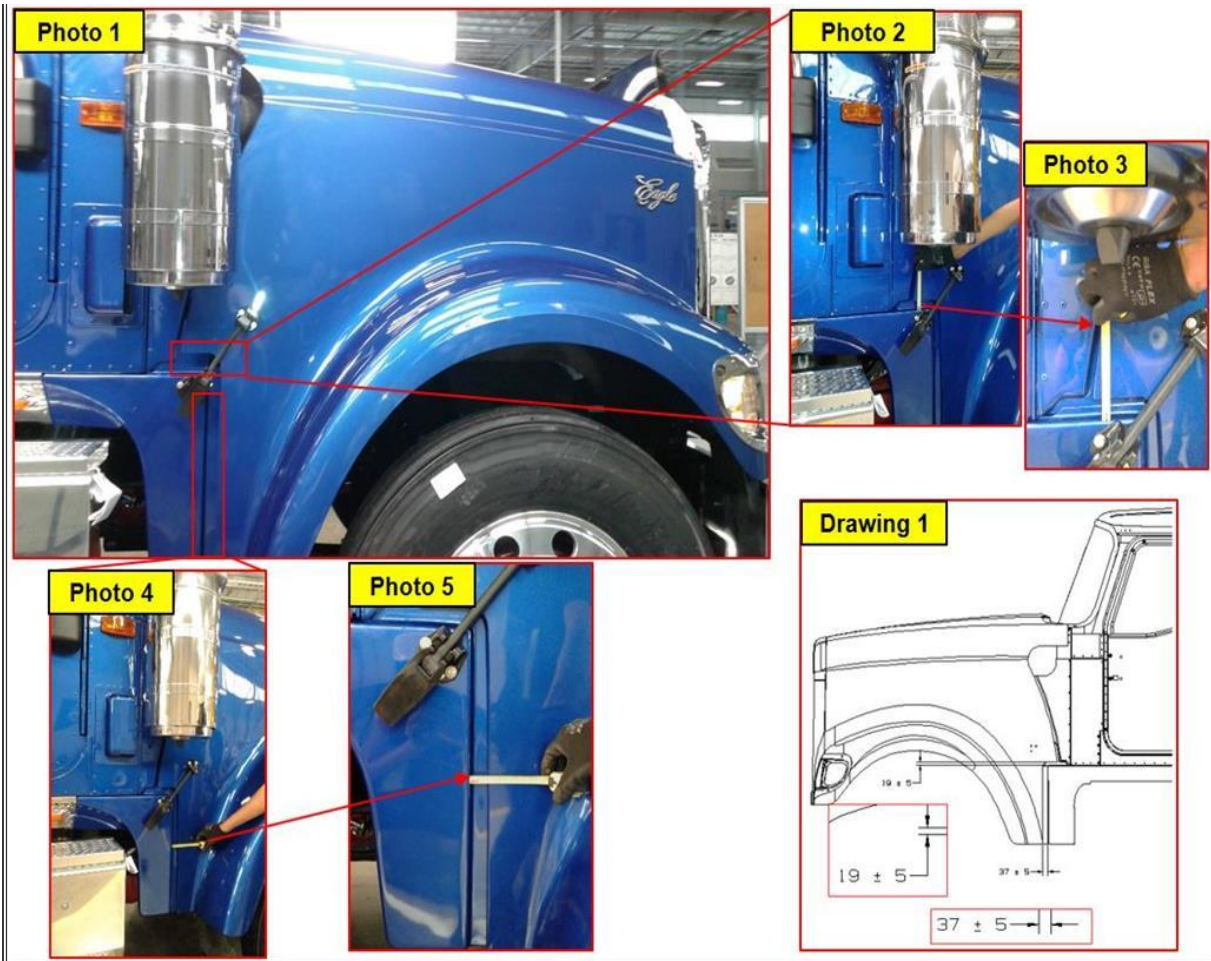
Photo 2: Example of a misaligned hood. **(This photo depicts an unacceptable condition.)**

**Eagle/9000 Series with Dual DEACs (Air Filters) - Review and Inspection of Hood Gap & Alignment Tolerances:**

Gap Location	Requirement	Comments
Horizontal Gap	32mm - 42mm	Reference Figure 3 below
Vertical Gap	14mm - 24mm	Reference Figure 3 below

Measuring the hood to cab gaps. (Right side is shown, Left side is the same but opposite)  
 Measure both Horizontal & Vertical gaps as shown in Figure 3. Refer to Photos 2-5 in Figure 3 for measurement technique.





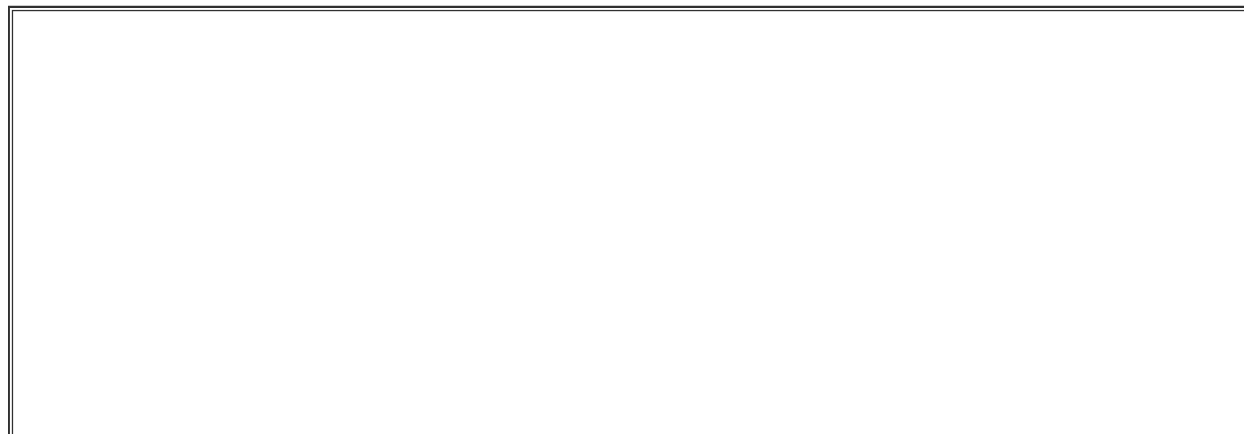
**Figure 3: Eagle & 9000 Series Hood Gap & Alignment**

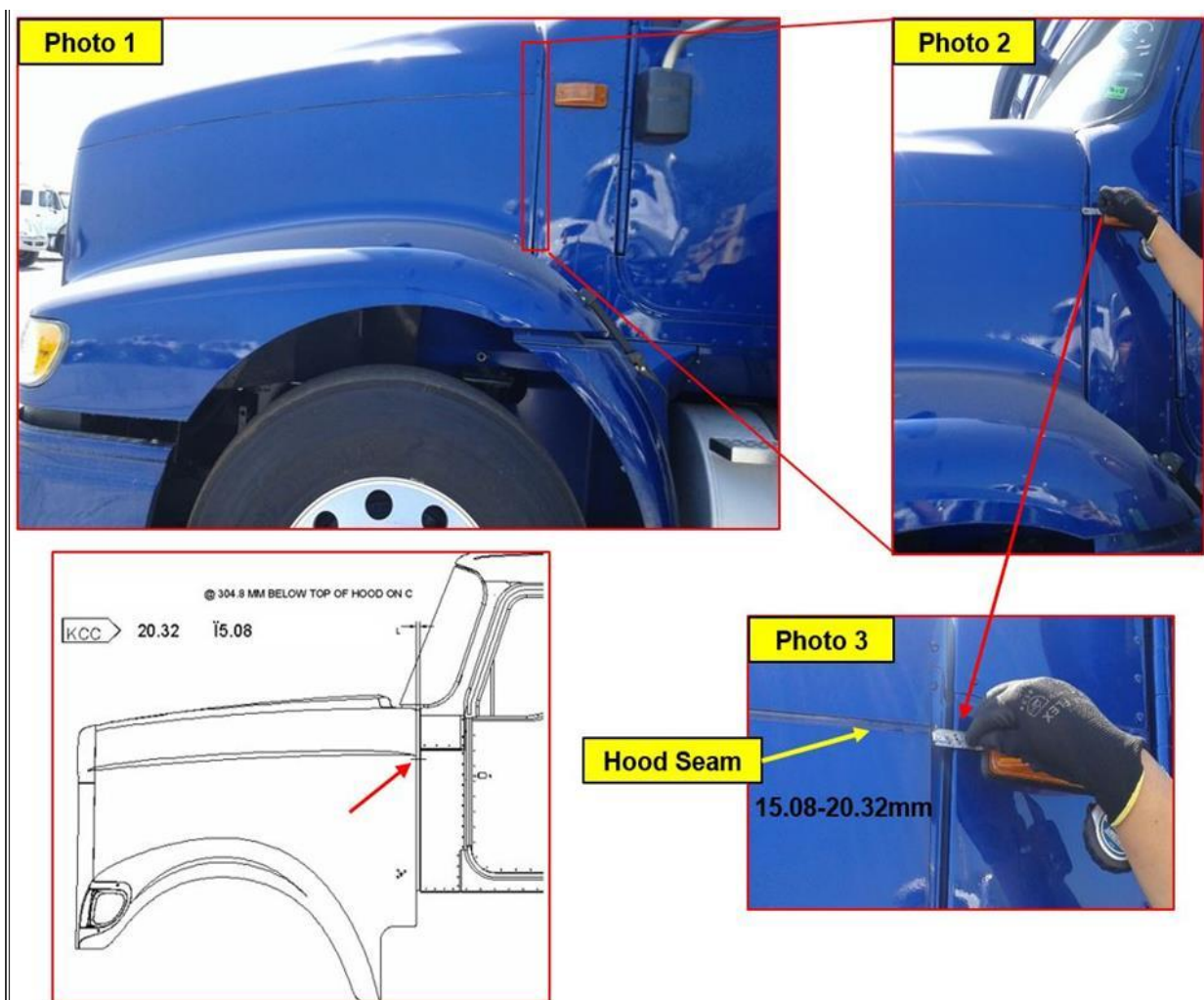
Photo 1: Overall view of right side gap. Left side is the same but opposite.  
 Photo 2-3: Measurement of Horizontal Gap.  
 Photo 4-5: Measurement of Vertical Gap.  
 Drawing 1: Reference Only

**9000 Series without Dual DEACs (Air Filters) - Review and Inspection of Hood Gap & Alignment Tolerances:**

Gap Location	Requirement	Comments
Vertical Gap at Hood Seam	15.08mm - 20.32mm	Reference Figure 4, photo 3

Measuring the hood to cab gap. (Left side is shown, Right side is the same but opposite)  
 Measure both Horizontal & Vertical gaps as shown in Figure 4. Refer to Photos 2-5 in Figure 4 for measurement technique.





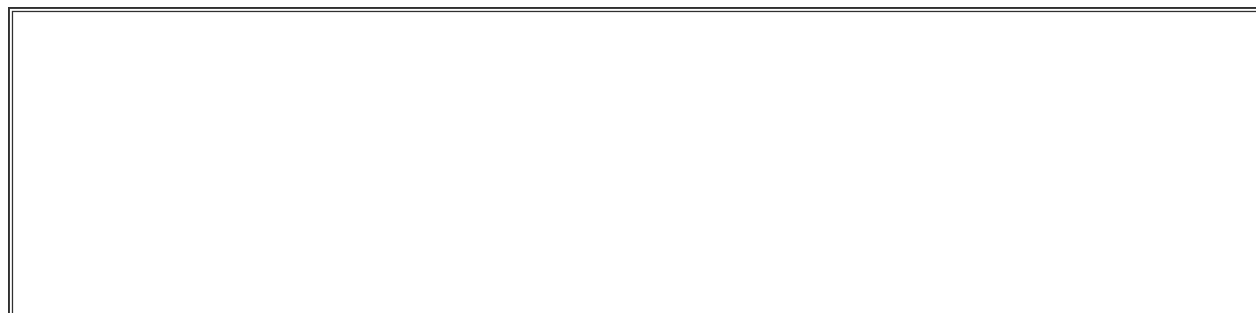
**Figure 4: 9000 Series Hood Gap & Alignment**

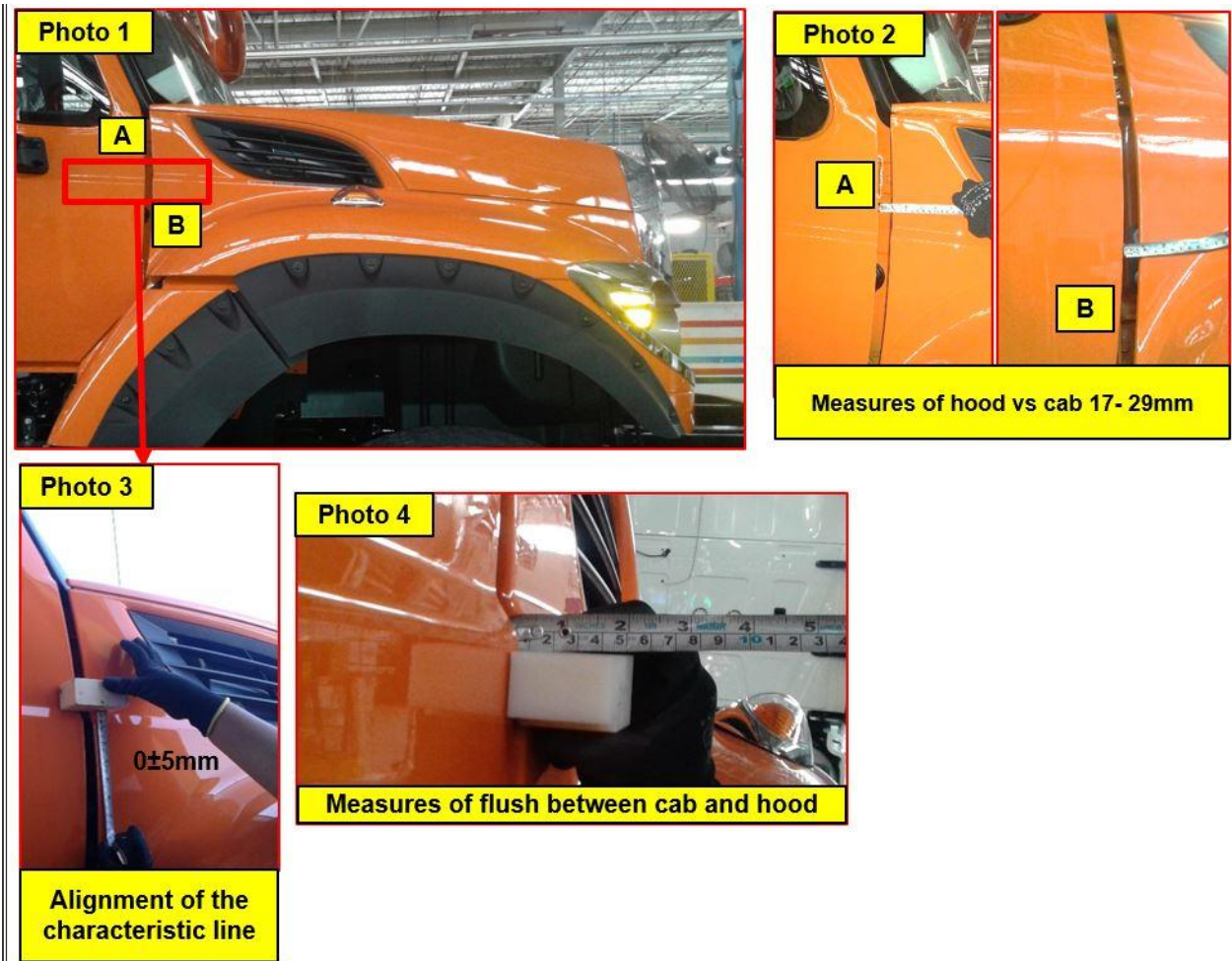
Photo 1: Overall view of left side hood to cab gap. Right side is the same but opposite.  
 Photo 2-3: Measurement of hood to cab verticle gap at hood seam location.

**HV/WorkStar/7000 Series- Review and Inspection of Hood Gap & Alignment Tolerances:**

Gap Location	Requirement	Comments
A	17mm - 29mm	See Figure 5, photos 1 & 2
B	17mm - 29mm	See Figure 5, photos 1 & 2
A to B Paralleism	4mm Max	Difference between A & B (both sides)
Lt Side Gap vs Rt Side Gap	6mm Max	Difference between left & right side of truck

Measuring the hood to door gap. (Right side is shown, Left side is the same but opposite)  
 Measure at both Point A and Point B as shown in Figure5. Refer to Photo 2 in Figure 5 for measurment technique.





**Figure 5: HV/WorkStar/7000 Series Hood & Gap Alignment**

Photo 1: Overall view of right side gap showing Point A & Point B.  
 Photo 2: Measurement at Point A & Point B.  
 Photo 3 & 4: Measurement of Characteristic Line.

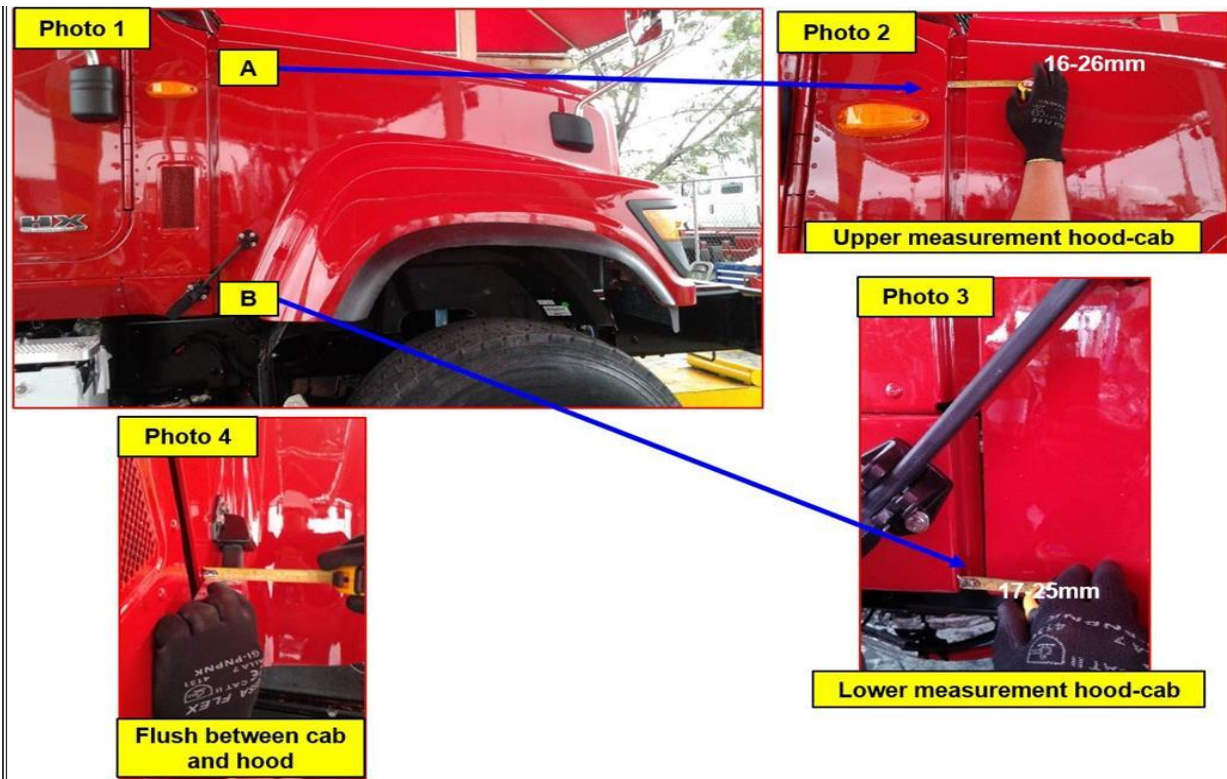
Gaps	Requirement	Comments
Characteristic Line	0 +/- 5mm	See Figure 5, photo 3. Check both sides of truck
Cab to Hood Flushness	0 - 5mm Max	See Fgure 5, photo 4. Check both sides of truck

**HX 515 without DEACs (Air Filters) - Review and Inspection of Hood Gap & Alignment Tolerances:**

Gap Location	Requirement	Comments
A	16mm - 26mm	See Figure 6, photos 1 & 2
B	17mm - 25mm	See Figure 6, photos 1 & 3
A to B Paralleism	5mm Max	Difference between A & B (both sides)
Flushness Cab to Hood	4mm Max	See Figure 6, Photo 4
Left Side Gap vs Rt Side Gap	4mm Max	Difference between the gaps from the left & right side of truck.

Measuring the hood to cab gap. (Left side is shown, Right side is the same but opposite)  
 Measure both Horizontal & Verticle gaps as shown in Figure 6. Refer to Photos 1-3 in Figure 6 for measurment technique.





**Figure 6: HX 515 Hood Gap & Alignment**

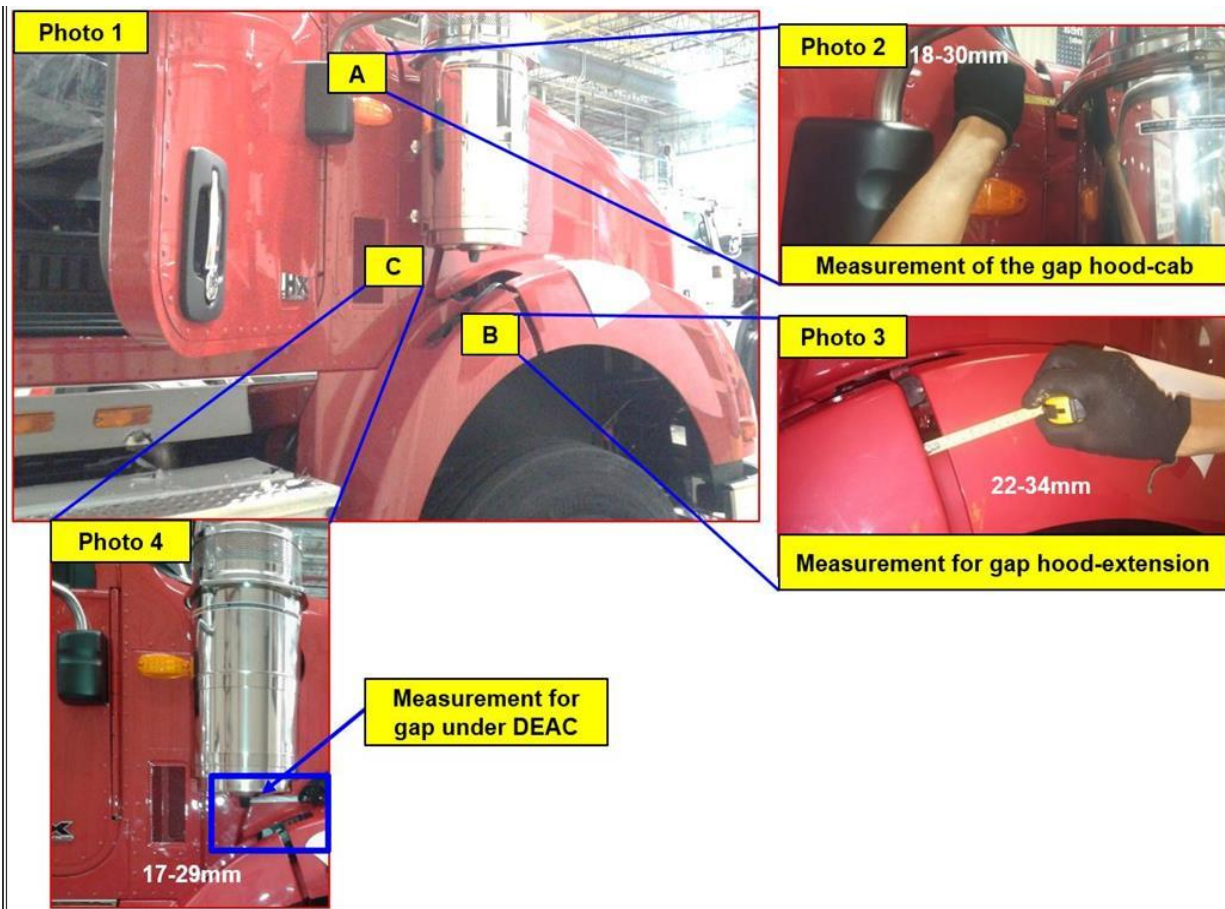
Photo 1: Overall view of right side hood to cab gap. Left side is the same but opposite.  
 Photo 2-3: Measurement of hood to cab verticle gap at hood seam location.  
 Photo 4: Gap flushness.

**HX 620 with DEACs (Air Filters) - Review and Inspection of Hood Gap & Alignment Tolerances:**

Gap Location	Requirement	Comments
A	18mm - 30mm	See Figure 7, photos 1 & 2
B	22mm - 34mm	See Figure 7, photos 1 & 3
C	17mm-29mm	See Figure 7, photo 4
A to B Paralleism	5mm Max	Difference between A & B (both sides)
Lt Side Gap vs Rt Side Gap	4mm Max	Difference between the gaps from the left & right side of truck.

Measuring the hood to cab gap. (Left side is shown, Right side is the same but opposite)  
 Measure both Horizontal & Verticle gaps as shown in Figure 7. Refer to Photos 1-4 in Figure 7 for measurment technique.





**Figure 7: HX 620 with DEACs Hood Gap & Alignment**

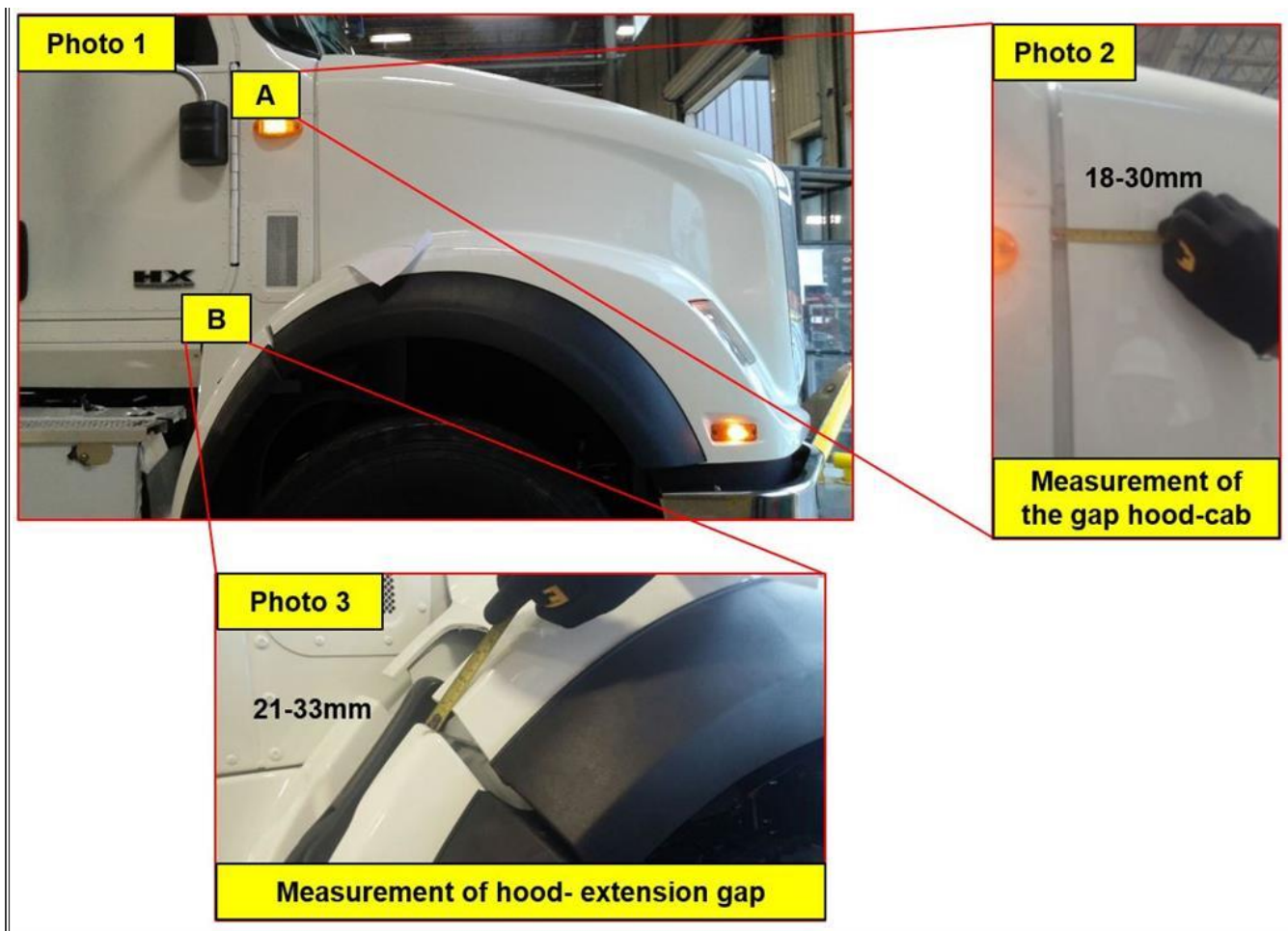
Photo 1: Overall view of right side hood to cab gap. Left side is the same but opposite.  
 Photo 2-3: Measurement of hood to cab verticle gap at hood seam location.  
 Photo 4: Gap flushness.

**HX 615 & 620 with Extention without DEACs (Air Filters) - Review and Inspection of Hood Gap & Alignment Tolerances:**

Gap Location	Requirement	Comments
A	18mm - 30mm	See Figure 8, photos 1 & 2
B	21mm - 33mm	See Figure 8, photos 1 & 3
Vertical Gap Paralleism	5mm Max	Difference between A & B (both sides)
Lt Side Gap vs Rt Side Gap	4mm Max	Difference between the gaps from the left & right side of truck.

Measuring the hood to cab gap. (Left side is shown, Right side is the same but opposite)  
 Measure both Horizontal & Verticle gaps as shown in Figure 8. Refer to Photos 1-3 in Figure 8 for measurment technique.





**Figure 8: HX 615 & 620 with Extension without DEACs Hood Gap & Alignment**

Photo 1: Overall view of right side hood to cab gap. Left side is the same but opposite.  
 Photo 2-3: Measurement of hood to cab verticle gap & Fender seam location.

## REMOVAL/ INSTALLATION PROCEDURE

Refer to appropriate service manual

## WARRANTY INFORMATION

### **Warranty Claim Coding:**

Refer to the [Warranty Coding Manual](#) for Group and Noun Codes.

## STANDARD REPAIR TIME

Refer to the [SRT Manual](#) for Repair Times

## OTHER RESOURCES

[Master Service Information Site](#)

Hide Details

Feedback Information

Viewed: 326  
 Helpful: 17  
 Not Helpful: 0

No Feedback Found