



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation:	EA 09-008	Date Closed:	08/27/2010
Prompted by:	TSB	Reviewer:	Bruce York-B
Date Opened:	05/29/2009		
Investigator:	Nate Seymour		
Approver:	Richard Boyd		
Subject:	Horton Fan Hub Failures		

MANUFACTURER & PRODUCT INFORMATION

Manufacturer:	PACCAR INCORPORATED
Products:	2007-2008 PETERBILT AND KENWORTH TRUCKS WITH HORTON FAN HUBS
Population:	127,593
Problem Description:	THE ENGINE COOLING FAN HUB MAY FAIL RESULTING IN A FAN SEPARATION AND A DISABLED VEHICLE.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	0	43	43
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
Fatality Incidents:	0	0	0
Other*:	0	18,116	18,116
*Description of Other: Warranty Claims			

ACTION / SUMMARY INFORMATION

Action: This EA is closed
PACCAR is conducting an owner notification program copy attached.
NHTSA TSB # (10033585, 10033584).

Summary:

PACCAR is conducting an Owner Notification Program (ONP) for select vehicles within the subject and peer populations. The ONP are attached to the closing report and can be found in the NHTSA Technical Service Bulletin (TSB) database. (TSB: 10033585, 10033584)

See Closing report for investigation details.

ENGINEERING ANALYSIS CLOSING REPORT

EA No: EA09-008

Date Opened: May 29, 2009

Date Closed: August 27, 2010

SUBJECT: Horton fan hub failures

BASIS: This Engineering Analysis (EA) was the result of Preliminary Evaluation (PE) 09-002, which investigated Horton fan hub failures on certain 2007 and 2008 Model Year (MY) PACCAR vehicles. PE09-002 was opened based on IE08-110 which included EWR field reports of Peterbilt vehicles experiencing cooling fan hub failures. As a result of the PE, ODI expanded its investigation to include a peer vehicle population of 2003-2010 MY vehicles. This offered a better historical look at the subject vehicles.

SUBJECT VEHICLES: MY 2007-2008 PACCAR Class 7 & 8 vehicles equipped with Horton fan hubs. PACCAR builds vehicles under the Peterbilt and Kenworth brands in the United States. The vehicles are commonly equipped with PACCAR, Caterpillar, and Cummins engines in various sizes. Vehicle usage ranges from local to long haul operations.

PEER VEHICLES: MY 2003-2006 and 2009-2010 PACCAR Class 7 & 8 vehicles equipped with Horton fan hubs.

ALLEGED DEFECT: Engine cooling fan hub bearings fail resulting in a disabled vehicle

CORRESPONDENCE: 9 Jan 2009 - ODI Information Request to PACCAR (PE09-002)
14 Jan 2009 - ODI Information Request to Horton (PE09-002)
2 March 2009 - PACCAR response letter to ODI
10 March 2009 - Horton response letter to ODI
31 July 2009 - ODI Information Request to PACCAR (EA09-008)
15 Oct 2009 - PACCAR response letter to ODI
15 December 2009 - PACCAR supplemental response letter to ODI
10 Aug 2010 - ODI received confirmation of PACCAR ONP

POPULATION: PACCAR built 368,344 subject and peer vehicles, 127,593 of which are subject vehicles. Table 1: Population by Make and Model Year shows greater detail. The population is used for both long haul and local operations. Long haul vehicles typically travel 100,000 plus miles per year. Local operations can be expected to travel 40,000 miles annually.

Table 1: Population by Make and MY

Make	2003	2004	2005	2006	2007	2008	2009	2010	Total
Peterbilt	19,545	16,527	22,434	39,690	51,045	22,274	22,034	8,616	202,165
Kenworth	16,660	16,716	28,391	28,064	36,857	17,417	15,605	6,469	166,179

DESCRIPTION OF COMPONENT/VEHICLE SYSTEM: The engine cooling fan hub mounts a fan to the front of the engine harnessing the rotation of the engine's crankshaft to cool the engine. Figure 1: Subject Component, visually displays a typical Horton Fan Hub. Horton's on/off design is spring-engaged and air-disengaged. This allows the hub to free spin when the engine is below a defined temperature. When the coolant temperature exceeds a predetermined value, air pressure is removed from the hub and the springs cause the friction disks to engage, therefore spinning the engine cooling fan to draw air through the radiator. Once the coolant temperature has been reduced to the predetermined lower limit air pressure is returned to the hub and the clutch discs disengage.

The normal life expectancy of the hub depends on the application. There are three ways a hub unit typically fails: the friction discs wear out, it develops an air leak, or the bearings fail. The hub is normally rebuilt after one of the failure modes is realized. During a rebuild all wearable components will be replaced, restoring the hub to like new condition.

Figure 1: Subject Component



DESCRIPTION OF ALLEGED DEFECT: The alleged defect is a premature failure of the fan hub bearing. A failure of the fan hub bearing can cause the fan to separate from the fan hub, which leads to the engine overheating and the vehicle becoming disabled. The subject and peer vehicles use a progressive shut-down system which, through a series of steps such as decreasing engine power and vehicle speed, eventually leads the truck to shut off the engine, leaving the truck disabled until the engine cools back down.

PROBLEM EXPERIENCE: PACCAR calculated that the subject and peer vehicles have traveled over 200 billion miles without report of crash, injury or death. From this, ODI estimates that the subject vehicles have traveled over 80 billion miles without the same. Table 2: Subject Vehicle Investigation Statistics, shows complaint and warranty data and Table 3: Peer Vehicle Investigation Statistics shows the same information for a broader group of vehicles.

Table 2: Subject Vehicle Investigation Statistics

EA	Open			Close		
	ODI	PACCAR	Total	ODI	PACCAR	Total
Complaints	0	6	6	0	43*	43*
Crashes	0	0	0	0	0	0
Injuries**	0	1	1	0	1	1
Fatalities	0	0	0	0	0	0
Warranty	NA	1,645*	1,645*	NA	18,116	18,116

* Count taken from PE response which didn't include additional models included in the EA

** Injury could not be confirmed

Table 3: Peer Vehicle Investigation Statistics

EA	Close		
	ODI	PACCAR	Total
Complaints	0	161	161
Crashes	0	0	0
Injuries	0	0	0
Fatalities	0	0	0
Warranty	NA	54,351	54,351

COMPLAINTS: No Vehicle Owner's Questionnaires were received involving the subject vehicle and alleged defect.

PACCAR submitted 43 complaints involving the subject vehicles. This is a complaint rate of 34/100K. Several complainants were surveyed to gain a better understanding of the failures. In all response the complainants reported they were able to stop in a safe location. They were able to safely move the vehicle away from the travel lane or to a parking area and then stop. This directly correlates with the lack of crashes reported on the subject vehicle population. ODI also surveyed the owners to determine how long a vehicle is parked along a roadway before a tow truck recovers the vehicle. Respondents typically stated two to four hours, keeping in mind that it is primarily dependent upon the tow truck's travel time.

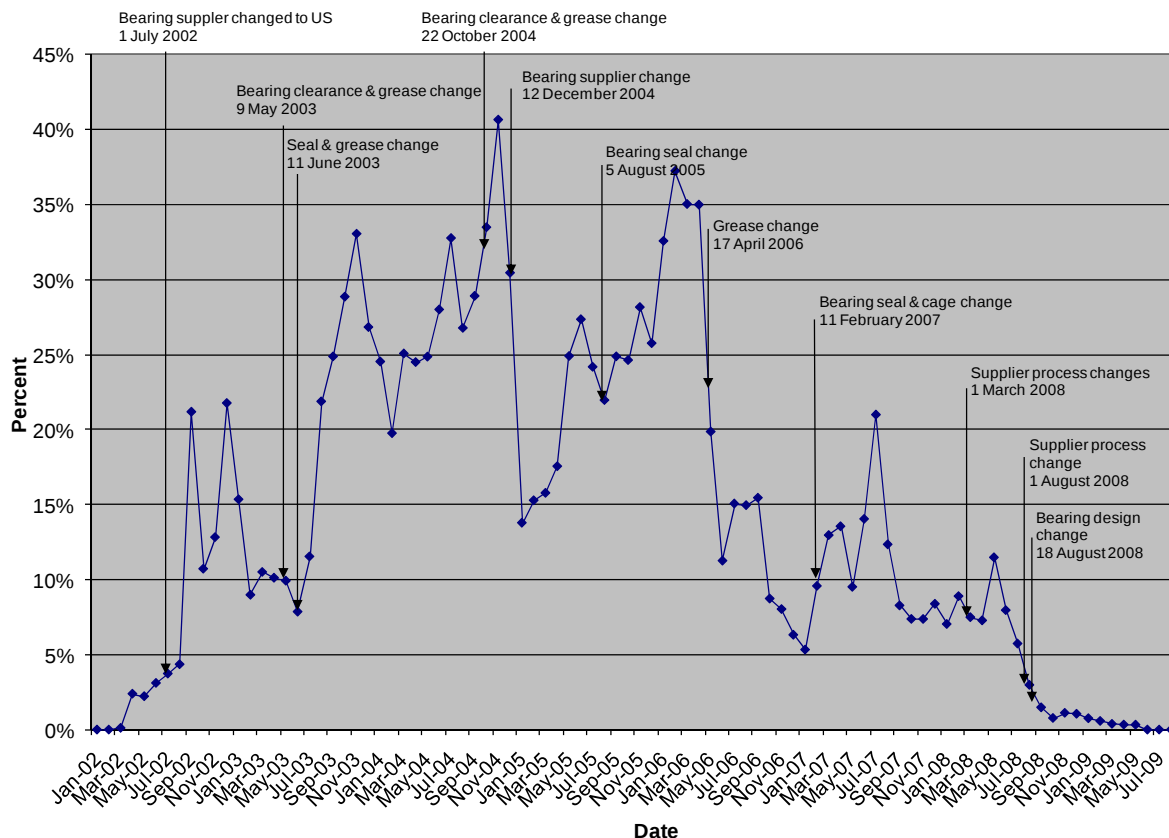
WARRANTY: PACCAR provides coverage for the entire vehicle including the fan hub for the first year or 100,000 miles. Horton provides all owners additional coverage up to two years and 200,000 miles. Consumers also had the option to purchase additional cover of various combinations of years and mileages up to four years and 600,000 miles. PACCAR administers the warranty for both itself and Horton.

PACCAR reported a warranty rate of 14.2% on all subject vehicles. It is important to understand that the warranty claim rate does not differentiate normal wear out and alleged defect failure. Nor does it exclude claims submitted in response to PACCAR's continuing efforts to improve customer satisfaction through fleet policy and customer satisfaction campaigns. For a more accurate assessment of the alleged defect ODI looked at the hub separation rate and the rate of warranty claims that resulted in a towed vehicle. The separation rate and towed rate of the subject vehicles was: 2% and 0.6% respectively. This is negligibly more than the combined population of subject and peer vehicles which were assessed at 2% separation and 0.5% towed.

Figure 2: Normalized Warranty Data: Failure per Build Month, visually displays the overall warranty rate of the alleged defect for subject and peer vehicles. Also shown on the graph are all the dates that design changes were implemented on the subject fan hub.

The warranty rate peaked in November 2004 at 42% and again in February 2006 at 37%. Since the last design change in August 2008 the warranty rate has stayed below one percent.

Figure 2:
Normalized Warranty Data: Failures per Build Month



ODI considered the average time and mileage to failure. Figure 3: Time in Service, reveals that the subject vehicle's peak failure time was between seven and thirteen months in service. Figure 4: Failure Mileage reveals that the majority of subject vehicle hubs failed within 100,000 mile and nearly all failures occurred within 350,000 miles.

Figure 3: Time in Service

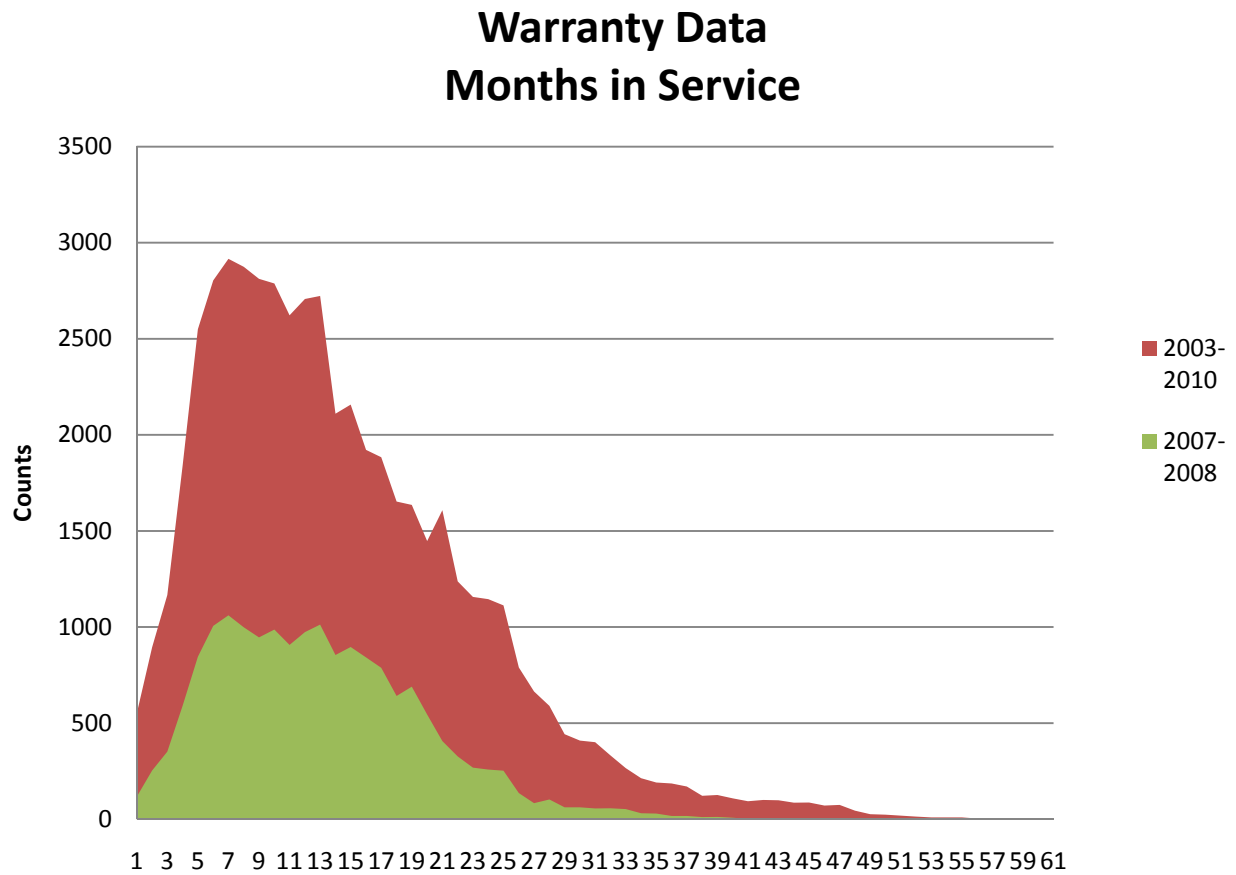
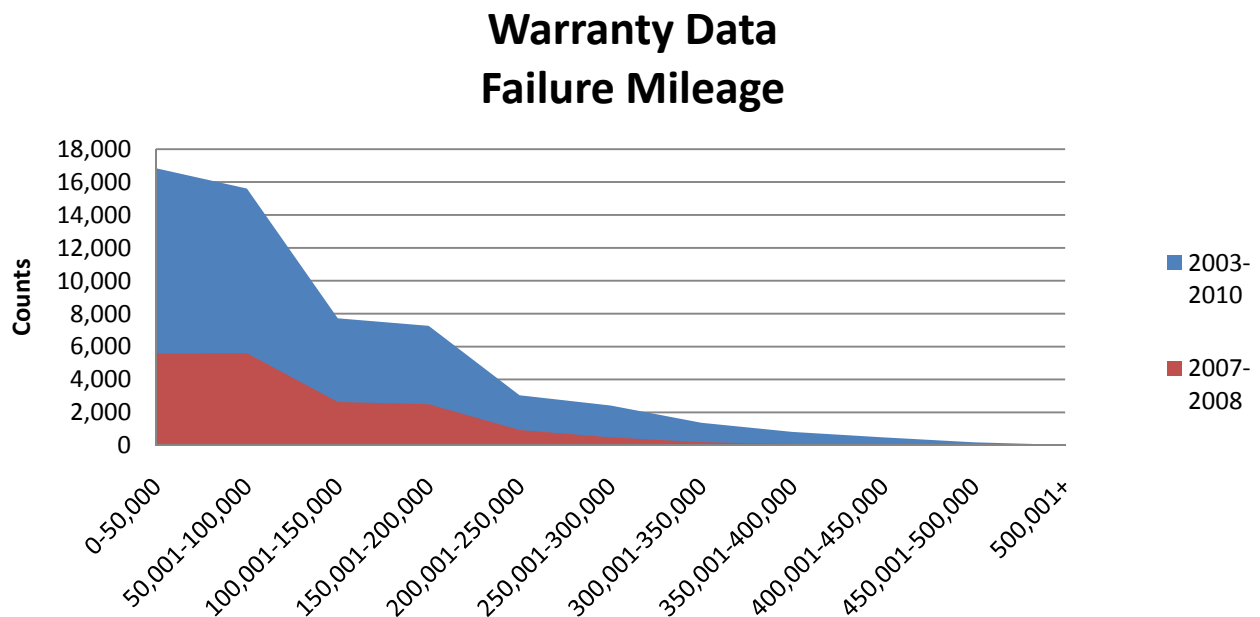


Figure 4: Failure Mileage



TECHNICAL SERVICE BULLETINS and COMMUNICATIONS: PACCAR issued three Technical Service Bulletins relative to the subject vehicles. Two were issued under the Kenworth brand and one under the Peterbilt brand. All bulletins were issued in response to actions taken by Horton to improve the subject component. Each was considered a customer satisfaction issue and no safety related concerns were communicated in the bulletins.

On 9 August 2006, Kenworth issued TIB 42-36. This communication alerted dealers that repair kits were available for all Horton fan hubs and that repair kits were to be used rather than replacement assemblies. This communication was initiated at Horton's request as a warranty reduction initiative. Horton had identified four repair kits which would repair over 95% of the claims.

Peterbilt issued a Field Service Bulletin on 18 April 2007. The bulletin offered owners of vehicles with an in service date after 1 April 2006 the option to receive new bearings and labor at no cost or free labor when the new Super-Kit was purchased at a discounted price.

Kenworth issued TIB 42-37 on 25 May 2007 offering the same upgrade options as Peterbilt did on 18 April 2007. However the offer was restricted to standard PACCAR/Horton warranty time in service and mileage guidelines.

MANUFACTURE, DESIGN, MATERIAL COMPOSITION MODIFICATIONS: The subject and peer vehicles received eleven (11) design, material or supplier changes. These changes are graphically displayed on Figure 2: Normalized Warranty Data: Failure per Build Month. The first change was a bearing supplier change on 1 July 2002. A bearing clearance and grease change was initiated on 9 May 2003. Another grease change and bearing seal change was initiated 11 June 2003. The bearing clearance was changed again along with the grease on 22 October 2004. Seventeen months after the last bearing supplier change, it was changed again on 12 December 2004. This was the first change that had a dramatic improvement. However the improvement did not last and on 5 August 2005 the bearing seal was changed again. This did not improve the product so on 17 April 2006 the grease was changed for the fourth time, this time resulting in significant improvement. The bearing seal and cage was changed on 11 February 2007. The supplier changed some processes 1 March 2008 and again 1 August 2008. The final change was made 18 August 2008 and appears to have fixed the problem.

PACCAR'S EVALUATION OF THE ALLEGED DEFECT: PACCAR does not believe that premature bearing failure poses an unreasonable risk to motor vehicle safety. PACCAR stated that over the road trucks typically travel between 105,000 and 110,000 miles annually and that the medium duty trucks travel an average of 37,000 to 44,000 miles yearly. This equates to over 200 billion miles traveled by the subject and peer vehicles over the last seven years. During that time there were no known reports of death, injury, or crashes related to a disabled subject or peer vehicle on or along a roadway.

PACCAR's evaluation also included a look at heavy truck fatalities in general. PACCAR cited 2007 data released by NHTSA and FMCSA that reported 51 fatalities resulted from a disabled heavy truck on the roadside. Considering the vehicle miles traveled annually by the trucking industry, this is a very rare event. PACCAR went further to assert that its statistical analysis shows that rear impact fatal crashes involving heavy trucks is approximately the same whether the truck is stopped or moving.

HORTON'S EVALUATION OF THE ALLEGED DEFECT: During the PE portion of this investigation Horton offered the following assessment:

“With respect to bearing failures, Horton feels strongly that the premature bearing failures do not implicate motor vehicle safety. As discussed below, Horton has produced approximately 223,287 DriveMaster fan clutches for PACCAR trucks since January 1, 2006 (which could cover PACCAR’s heavy and medium duty model year trucks for 2006-2009). Horton has produced approximately 286,588 DriveMaster fan clutches for other heavy duty truck customers during that period. As of the present date, [10 March 2009] Horton is not aware of a single documented case where a bearing failure in the fan clutch has led to a fire or an accident, injury or third party property damage claim. Given that over 500,000 trucks have been equipped with the DriveMaster fan clutch since January 1, 2006, and they have accumulated literally tens of billions of miles during that period, the lack of a single documented accident, injury or third party property damage claim is compelling evidence that motor vehicle safety is not implicated with respect to these bearing issues.”

OBSERVATIONS: During the PE ODI discovered peer vehicles were suffering similar failures as the subject vehicles. Therefore the investigation was expanded to include a broader population. This resulted in a realization that the problem started in 2002 and was not limited to 2007 & 2008 MY vehicles. ODI considered geographic location, climate, and model and engine differences. From these it ruled out geographic and climate variables as contributing factors. ODI focused on model and engine configurations as possible factors contributing to failures of the subject component. Large displacement engines, namely the C15 and ISX had a greater number of warranty claims than other engines installed in the subject vehicle.

DISCUSSION: This EA was opened to investigate the risk associated with a cooling hub bearing failure on the subject vehicles. ODI examined failure data and technical information supplied by PACCAR, Horton, and vehicle owners. ODI also surveyed many of the complainants and visited a local weigh station to talk with drivers.

The hub has four possible failure modes. The driver may hear a noisy hub alerting them to service the unit. The fan clutch may become inoperable, either failing to engage or disengage resulting in an engine running too hot or cold. The fan clutch could seize. Or the bearings could fail resulting in a separation. Approximately two percent of all warranty claims for both subject and peer vehicles resulted in a separated fan hub. And as previously noted none of these events caused a personnel injury or third party property damage.

An audible warning is the most likely indication a driver will notice prior to failure, however most drivers that reported a separation also stated that there was no warning. The fan experiences the greatest load when the engine is working the hardest. When the engine is working hard it is very loud. This makes it difficult for a driver to hear the audible warning. With the engine idling during a pre-trip inspection the hub may not emit an audible noise detectable by a driver. The other possible indication - is looseness of the bearings and/or engine belts. However since most trucks use a serpentine belt and automatic belt tensioner it is difficult to detect worn bearing without additional tools not normally incorporated into a driver’s pre-trip inspection.

ODI was also concerned that a disabled vehicle might result in a vehicle collision while stranded on the side of the road. Approximately 0.5% of the total population required towing after a failure occurred.

In some cases the vehicle was towed from a location other than the shoulder of a roadway, such as a parking lot. Therefore the risk presented from a disabled vehicle is less than the data depicts.

While ODI believes that a stalled vehicle does pose a risk to motor vehicle safety, in this case the subject and peer vehicles (with over 200 billion miles traveled) have not broken down frequently or broken down in a dangerous location often enough to result in a crash, or did not have the crash reported. It is also important to note that if the fan does separate it is still possible to move the vehicle. Leaving a vehicle in a dangerous location subject to collision with traffic would be a driver's decision. Additionally, all commercial vehicles are required to be equipped with traffic warning devices such as flares and triangles should they become immobile.

Aware that PACCAR vehicles are custom specified by the purchaser, ODI also considered make, model and engine configurations. The result was a determination that large displacement engines (C15 and ISX) yielded the greatest number of warranty claims. An exception to this was the Peterbilt model 320. The Peterbilt 320 was the only cab forward design had characteristics unique to its self which resulted in higher warranty rates.

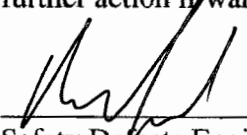
Horton made several product improvements on PACCAR's behalf over the duration of the peer/subject vehicles production. Looking at the time to failure ODI noted that the failure rate appeared to peak between seven and thirteen months. The final product change was made in August 2008, twenty-two months prior to the current date (10 August 2010). Nearly all hub failures occurred within thirty-five months of their build date.

CONCLUSIONS:

- 1) Vehicles with larger displacement engines are more likely to suffer a bearing failure and therefore represent a greater portion of the subject population that might present a risk to highway safety as a disabled vehicle;
- 2) Regular fleet maintenance supported by OEM communications such as the ONP increase the likelihood that warning signs will be detected and used to address any issues prior to causing a safety risk to the motoring public;
- 3) A comprehensive review of complaint, warranty, and production data suggest that the majority of failures would already have occurred; and
- 4) The final design change and replacement of the DriveMaster with the DM Advantage hub appear to have solved the issue.

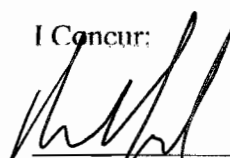
On 5 August 2010, PACCAR agreed to conduct an Owner Notification Program (ONP) to provide additional warranty coverage for all large displacement engines and the Peterbilt model 320. This ONP provides coverage for the vehicles that are most likely to experience a fan hub failure that have not reached the time in service or mileage when the failure is most likely to occur. This ONP also provides owners with notification of how to identify a potentially failing fan hub and describes the potential consequences of the failure.

In view of all of the above, ODI has concluded that no further action on this investigation is warranted. Therefore, this investigation is closed. The closing of this investigation does not constitute a finding by NHTSA that no safety-related defect exists. ODI will continue to monitor and reserves the right to take further action if warranted by the circumstances.

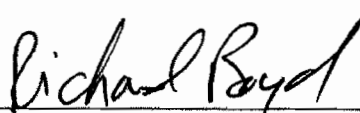

FOR
DATE SEYMOUR
Safety Defects Engineer

8/27/10
Date

I Concur:


(Acting Division Chief)
Chief, Medium & Heavy Duty Truck Division

8/27/10
Date


(Acting Director)
Director, Office of Defects Investigation

8/27/10
Date

August 24, 2010

VIA U.S. MAIL AND E-MAIL (bruce.york@dot.gov)

Mr. Bruce York
Chief, Medium/Heavy Duty Vehicle Division
U.S. Department Of Transportation
National Highway Traffic Safety Admin.
Office of Defects Investigation
Room W46-322
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Re: EA09-008
Horton Fan Hub Bearings (REVISED)

Dear Mr. York:

Please accept this letter as PACCAR's intention to commence an Owner Notification Program concerning the possibility of premature wear in the bearings of Horton Drivemaster fan clutches in the Peterbilt Motors Company and Kenworth Truck Company vehicles identified below. Although bearing failures had been addressed by both PACCAR and the component manufacturer, Horton Worldwide, through a series of product improvements affecting earlier model year trucks, it became clear during the course of ODI's investigation that certain 2008 and 2009 model year vehicles were experiencing similarly elevated warranty claim rates. Neither PACCAR nor Horton believes the premature bearing failures constitute a condition that presents a risk to motor vehicle safety. However, both PACCAR and Horton believe it is important that customers be fully informed regarding the early warning signs of a possible problem.

Customers of the affected vehicles will receive a letter which alerts them of early warning signs of failure and cautions them to inspect for these warning signs on a daily basis. If a failure occurs within 12 months following the inception of the warning campaign and the mileage on the vehicle is less than 350,000 miles, the customer may bring the vehicle into an authorized Peterbilt or Kenworth dealer for a replacement bearing kit. The bearing kit will be installed at no cost to the customer.

The details of the Owner Notification Program are as follows:

A. Manufacturer

Peterbilt Motors Company and Kenworth Truck Company

B. Identification of Affected Vehicles

There are a total of 26,562 vehicles which are subject to this Owner Notification Program. The specific model years, models, and engine configurations are as follows:

i. Peterbilt

2008 320 ISM; 2008 388 C15; 2008 386 ISX; 2008 389 C15; 2008 367 ISX; 2008 387 ISX; 2008 387 C15; 2008 367 C15; 2009 320 ISM; 2009 389 ISX; 2009 387 ISX; 2009 388 ISX; 2009 367 ISX; 2009 388 C15; 2009 389 C15; 2009 367 C15; 2009 387 C15; 2009 386 C15

TOTAL POPULATION 12,227

ii. Kenworth

2008 T600 ISX; 2008 T600 C15; 2008 T2000 ISX; 2008 T800 C15; 2008 W900 ISX; 2008 T2000 C15; 2009 T800 ISX; 2009 T600 ISX; 2009 W900 ISX; 2009 T800 C15; 2009 T2000 ISX; 2009 W900 C15; 2009 T600 C15; 2009 T2000 C15).

TOTAL POPULATION 14,335

C. Owner Notification Letter

A copy of the Owner Notification letter is attached. The commencement date of the Owner Notification Program is September 1, 2010.

D. Description of Remedy

The Owner Notification Program will include a 12 month extended warranty. Bearings which fail during the 12 month period after commencement of the Owner Notification Program will be replaced with a bearing kit at no cost to the customer provided that the vehicle mileage at the time of failure is less than 350,000 miles. The repairs must be completed at an authorized Peterbilt or Kenworth dealership.

E. Reporting

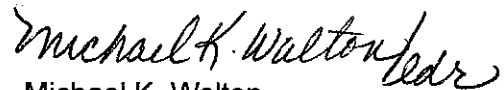
PACCAR will prepare and submit a closing report to NHTSA's Office of Defect Investigation on October 1, 2011 which identifies the vehicles which received the extended warranty repairs. The closing report will identify the repairs which were performed.

Mr. Bruce York
August 24, 2010
Page 3

Please note this letter supersedes PACCAR's August 10, 2010 letter. The earlier letter mistakenly included 2009 Peterbilt model 386 trucks equipped with ISX engines within the ONP population and omitted the 2008 Peterbilt model 387.

If you have any questions or concerns, please contact me at your convenience.

Very truly yours,


Michael K. Walton
Counsel

MKW:

cc: Nate Seymour, ODI (via email only)
Jeff Lindgren, Horton Worldwide (via email only)
Shawn Miller, Kenworth Truck Company (via email only)
Rod Curbo, Peterbilt Motors Company (via email only)

August 10, 2010

VIA U.S. MAIL AND E-MAIL (bruce.york@dot.gov)

Mr. Bruce York
Chief, Medium/Heavy Duty Vehicle Division
U.S. Department Of Transportation
National Highway Traffic Safety Administration
Office of Defects Investigation
Room W46-322
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Re: EA09-008
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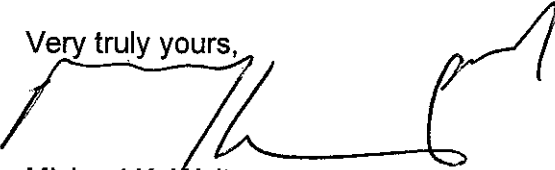
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If you have any questions or concerns, please contact me at your convenience.

Very truly yours,



Michael K. Walton
Counsel

MKW:

Enclosure: Draft Owner Notification Letter

Mr. Bruce York
August 10, 2010
Page 3

cc: Nate Seymour, ODI (via email only)
Jeff Lindgren, Horton Worldwide (via email only)
Shawn Miller, Kenworth Truck Company (via email only)
Rod Curbo, Peterbilt Motors Company (via email only)

September 1, 2010

Dear Customer:

This letter is to inform you that [Peterbilt Motors] has determined that a certain population of Model [320, 367, 386, 387, 388, 389] vehicles built between June 1, 2007 and August 31, 2008, powered by Caterpillar C15, Cummins ISX, or Cummins ISM (in the case of the model 320 only) engines, may experience a premature failure of the fan hub bearings. Our records indicate that your vehicle is in the suspect population.

Fan hub bearings that fail during operation will reduce engine cooling performance and may allow the fan to separate, which will cause an engine overheat situation and disable your vehicle.

We ask that you incorporate a daily regular pre-trip inspection of the fan hub bearings for the life of the fan hub in addition to inspections performed at regular maintenance intervals. If you are not the driver of the vehicle, please inform your drivers of the recommended inspection procedure:

Inspection procedure:

Look/Feel for fan hub bearing looseness loss of lubricant and abnormal conditions (fan hub drive belt misalignment, excessive wear and/or damage) **before starting the engine (ENGINE OFF)**

Start the engine and allow to idle

Stand at the front of the vehicle

Listen for any noise (growl or high pitched squeal*)

Open the hood and stand at the front of the vehicle

Listen for any noise (growl or high pitched squeal*)

Follow all safety precautions regarding the engine fan as identified by the warning labels in the engine compartment and the Operator's Manual.



* The noise will become louder when the engine is at normal operating temperature, with the fan clutch engaged and fan turning. It is recommended that the fan hub be serviced at the first sign of failure.

If you inspect and hear noise and/or identify abnormal conditions:

Schedule an appointment with your dealer to have the fan hub inspected and serviced.

If you do not hear the noise or do not identify abnormal conditions:

Continue your normal pre-trip inspection and scheduled preventive maintenance procedures.

[Peterbilt Motors] has partnered with Horton to provide an extended warranty period to the vehicles identified in this letter for the next 12 months or total of 350,000 miles (whichever occurs first). This extended warranty includes a new bearing kit. If your fan hub fails during this extended warranty period, or exhibits verified premature failure within the stated timeframe and the fan hub bearings need replacement, your dealer will take care of the repair at NO COST to you.

We apologize for the inconvenience this may cause, and appreciate your cooperation in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Rick Wood".

Rick Wood
Customer Service Manager



A **PACCAR** COMPANY

Date

Customer Name

Customer Address

Subject: TIB **XX-XXX**, Horton Fan Hub Bearings

Dear Kenworth Customer:

This letter is to inform you that Kenworth has determined that a certain population of model year 2008 and 2009 T660s, T800s, T2000s and W900s equipped with Caterpillar C15 or Cummins ISX engines may experience premature failure of the fan hub bearings. Our records indicate that your vehicle is in the suspect population.

Fan hub bearings that fail during operation will reduce engine cooling performance and may allow the fan to separate, which will cause an engine overheat situation and disable your vehicle.

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Open the hood and stand at the front of the vehicle

Listen for any noise (growl or high pitched squeal*)

Follow all safety precautions regarding the engine fan as identified by the warning labels in the engine compartment and the Operator's Manual.



* The noise will become louder when the engine is at normal operating temperature, with the fan clutch engaged and fan turning. It is recommended that the fan hub be serviced at the first sign of failure.

If you inspect and hear noise and/or identify abnormal conditions:

Schedule an appointment with a Kenworth dealer to have the fan hub inspected and serviced.

If you do not hear the noise or do not identify abnormal conditions:

Continue your normal pre-trip inspection and scheduled preventive maintenance procedures.



A **PACCAR** COMPANY

Kenworth has partnered with Horton to provide an extended warranty period for vehicles identified in this letter until September 1, 2011 or total of 350,000 miles (whichever occurs first). This extended warranty includes a new bearing kit. If your fan hub fails during this extended warranty period, or exhibits verified premature failure within the stated timeframe and the fan hub bearings need replacement, your dealer will take care of the repair at NO COST to you.

You can find the nearest Kenworth dealer at Dealer Locator on the website www.Kenworth.com. When contacting your selected Kenworth dealer, refer to TIB **XX-XXX** and the VIN listed on this letter.

We apologize for this inconvenience but ask for your cooperation to ensure continued satisfaction with Kenworth products.

Thank you,

Mike Kalkoske
Director, Quality Services
Kenworth Truck Company