



Service Bulletin

E266

Section

45 - Engine-MX

Description

PACCAR MX-13 EPA2017 Camshaft Replacement

Release Date

8/17/2020

Revision History

08/18/2020 - Added a note to check warranty claim history before replacing valve guide seals.

Introduction

PACCAR has selected specific chassis with EPA2017 MX-13 engines for re-inspection. Selected chassis will have the camshafts replaced. Some chassis may also be eligible for valve guide seal replacement as indicated on the chassis list. Check the warranty claim history to confirm.

Resolution

Campaign

Repairs for these chassis will be coordinated between the customer, Peterbilt Field Service, and dealers.

1. Review the attached chassis list for your dealer code and schedule your customer(s) for service if their chassis is on the list.
 2. If you are not using Service Management to start repair orders, review SIR for "Complete" or "In Process" next to the "E266" campaign code prior to performing this repair.
 3. Prior to making an appointment for this repair, order the oil sample kit and other parts for this repair as instructed in the Parts section.
 4. Follow the procedures below to take an engine oil sample and replace the camshaft.
-

Warranty

For repairs completed by 6/01/2021, Peterbilt will pay for parts at dealer net plus applicable mark-up and labor:

The Chassis List will indicate if exhaust valve guide seal replacement is required.

- 26.7 hrs. labor to replace the camshaft on 579 chassis. Use a long form claim. Includes all SRTs listed below, except 043-731.

- 26.6 hrs. labor to replace the camshaft on 389 chassis. Use a long form claim. Includes all SRTs listed below, except 043-731 and 014-114.
- 28.7 hrs. labor to replace the camshaft and replace exhaust valve guide seals on 579 chassis. Use a long form claim. Includes all SRTs listed below.
- 28.6 hrs. labor to replace the camshaft and replace exhaust valve guide seals on 389 chassis. Use a long form claim. Includes all SRTs listed below, except 014-114.

Peterbilt dealers may perform E266 repairs on Kenworth chassis. For Kenworth chassis repairs, file a long form claim and use the claim codes below.

Direct Fleets and Dealer Sponsored Fleets Warranty (DSFW) are not eligible to perform this campaign.

File the claim within 14 days in accordance with Warranty Policy Federal Safety Recall and Field Campaigns.

<u>For Field...</u>	<u>Enter...</u>
Failure Location	045-008-098
Failure Type	700
<u>Claim Type</u>	C
Campaign Number	E266
Labor	<p><u>SRT 045-EOS</u> 0.5 Obtain, package, and ship the oil samples</p> <p>SRT 100-529 0.2 hours – Disconnect the batteries for troubleshooting or when required by RMI R&R Procedure</p> <p>SRT 045-800 0.2 hours – Oil Filter Cartridge R&R</p> <p>SRT 045-660 25.0 hours – R&R Camshaft (includes all steps in RMI and 2-tech time for removing and installing tappets)</p> <p>SRT 045-661 0.4 hours – Package and return Camshaft</p> <p>SRT 045-968 0.3 hours DAVIE4 – Connecting to engine and gathering the trip and chart reports and logfile.</p> <p>SRT 014-114 0.1 hours – 579 only bumper removal</p> <p>SRT 043-731 2.0 hours – Replace exhaust valve guide seals</p>

Take-Off Parts Disposition: Return parts to PTC. Use ship code PT.

Parts

Parts are available from Paccar Parts.

All parts must be ordered unless they are labeled AR (As Required).

Oil sample kits are provided at no charge and must be ordered from PTC using this [order form](#). **Select E244B Service interval in the order form.**

Table 1 Camshaft Replacement Parts

Quantity	Part Number	Description
1	2245295PE	Camshaft
1	2259718PE	Camshaft Replacement Kit
1	1858032PE	Usit ring for Air compressor oil tube plug

2	1844625PE	seal ring for fuel lines
1	D42-1005	Gasket, Turbo to CAC Pipe
1	1844896PE	Gasket, Exhaust Flex Pipe
8	W34-1158	Flange Bolts M16x2, Rear Engine Mount
1	079340-21453	LOCTITE 542, 50 ML, FINE THREAD SEALANT
1	079340-43900	LOCTITE 243, 0.5 ML, THREADLOCKER
1	079340-51031	LOCTITE 510, 50 ML, GSKT ELIM, SEALANT
1	2234788PE	Oil Filter
1	2111441PE	Engine Oil Pan Gasket
1	1857669PE	Fuel filter module sealing ring
1	EC3501 U.S. EC7501 Canada	Engine Coolant (gallon) to top off cooling system
AR, up to 2 quarts	Source locally	Power Steering Fluid
47 quarts	Source locally	Engine Oil (quarts)
AR*	1930520PE	Unit Pump to High Pressure Fuel Rail lines
* Only needed if the fuel line fails the "Evaluate the injector back leak" test or is corroded.		

Table 2 Exhaust Valve Guide Seal Kit (if needed)

Quantity	Part Number	Description
1	2278242PE	Exhaust Valve Guide Seal Kit

Procedure

Please follow your dealership's safety procedures and precautions to ensure the vehicle can be safely repaired and maintained.

Download the DAVIE4 Log File

1. Connect with DAVIE4.
2. Download the DAVIE4 log file and trip recorder.

Start a TCS365 Case

Follow this guide to create the TCS365 case for this bulletin to ensure the case flows to the appropriate personnel.

1. Open TCS365 in Google Chrome or Microsoft Edge.
2. Select Vehicle Support | Technical Assistance.
3. Select Case Type Powertrain Support and Case Category Engine Diagnostics.
4. On the Powertrain Support page, fill in the following fields as follows and fill in the other fields as appropriate.
5. Subject: E266
6. Description: E266
7. Complaint/Verification Results: Chassis in for E266 repair
8. Did you perform the required steps: Yes
9. Did you attach a PDF log file: Yes
10. Warranty Dependent Case: Yes
11. Repairs and Parts Replaced: N/A
12. Diagnostic Details: N/A

Take a sample of the engine oil

Required Tools

These tools are available through the Fluid Analysis Program.

- VPUMP0 (Vacuum Pump for Oil)
- T5414 (Plastic Tubing, ¼ in. x 54 in.) (Min qt. 50)

Oil Sample Requirements

Gather the following information and enter it on the [survey form](#):

1. Engine Serial Number
2. Oil brand used by customer (e.g. Chevron, Exxon Mobil, Shell, etc.)

- If the customer uses bottled oil, provide a photo of the bottle, clearly showing the viscosity and API rating.
- 3. Oil Type (e.g. Delo XLE Synblend), Delvac Super 1300, Rotella-T5, etc.)
- 4. SAE Oil Viscosity (e.g. 10W-30, 15W-40, 5W-40, etc.)
- 5. API Performance Rating (e.g. CI-4+, CJ-4, CK-4, etc.)
- 6. Odometer Reading at current oil sampling (Clearly specify units of measure (e.g. Mileage or Kilometers))
- 7. Odometer Reading at previous oil change (Clearly specify units of measure (e.g. Mileage or Kilometers))
- 8. Engine hours at current oil sampling
- 9. Idle hours
- 10. Oil sample shipping tracking number

Take the Oil Sample

1. Ensure the engine is at operating temperature.
2. Within 15 minutes of turning off the engine, take an oil sample using the vacuum pump through the engine oil feed.



NOTE

Always use the vacuum pump and plastic tubing to obtain the engine oil sample.

- a. Ensure the plastic tubing is properly connected to the hand pump and the container is installed on the pump.
- b. Insert the tubing as far as possible into the oil feed tube.
- c. Fill the sampling container to the $\frac{3}{4}$ mark.



CAUTION

The oil container will be hot.

- d. Seal the container.
 - e. Check oil for metallic sheen.
3. Remove the oil filter and the centrifugal filter. Check the filters for oil contamination.
 - If there is no visible contamination, place the filter in the packaging included with the sample kit.
 - If there is visible contamination, photograph the debris, add the photo to the TCS365 case, and then place the filter in the packaging included with the sample kit.
 4. Ship the oil sample as instructed on the pre-printed/pre-paid labels.

Replace the Camshaft

1. Refer to the procedure in RMI.
2. Close the TCS365 case after all repairs are completed.

Replace the Exhaust Valve Guide Seals

Only replace the exhaust valve guide seals if it is indicated as eligible on the chassis list. Check warranty claim history to confirm.

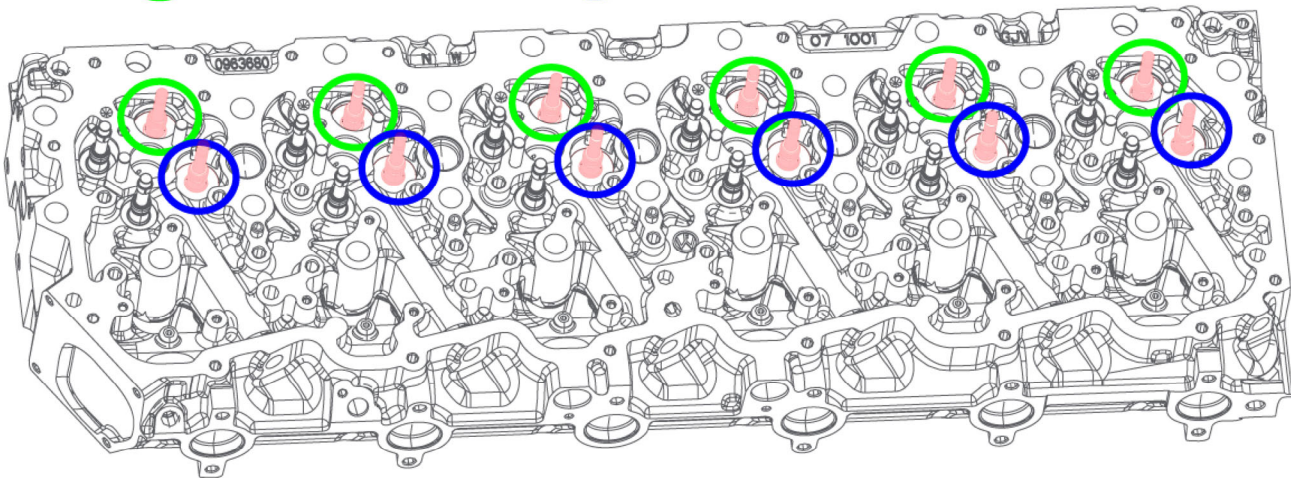
1. Replace only the exhaust seals. See the Valve Seal replacement job in RMI for instructions and refer to the following figure for the location and part number of the new seals and the Non-Brake spring washer.



NOTE

Check the valve spring keepers. Reuse them if there is no obvious wear.

Figure 1 Valve Guide Seal Locations



Valve	Spring Washer	Seal
Non-Brake Exhaust Valve	2182962	1819065
Brake Exhaust Valve	N/A	2162785

Attachments

[Chassis List](#)

Authored by: PR

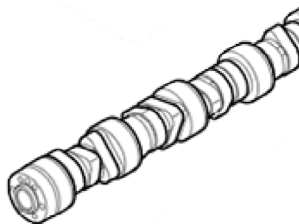
Access to PACCAR's Enterprise Portal is provided as a benefit of doing business with PACCAR. All applications and content accessed through this system are confidential and proprietary and the property of PACCAR Inc and its suppliers, and must be kept strictly confidential pursuant to the contract licensing such access. Disclosure, publication, release or distribution of any material found on PACCAR systems to any person other than employees with a need to know such information is strictly prohibited. All activity on this system is monitored. If PACCAR suspects or discovers any unauthorized activity, access may be immediately terminated without prior notification. Violators may be subject to legal action.

© Copyright 2020 PACCAR Inc. All rights reserved. We welcome your [feedback](#) on this page. For technical questions or concerns about this page, please contact the [DealerNet Webmaster](#).



Technical Information Bulletin

E266



Section

Engine - 45

Subject

PACCAR MX-13 EPA2017 Camshaft Replacement

Release Date

8/17/2020

Revision

08/25/2020: Chassis list updated.

Condition

Select chassis to have camshafts replaced. Some chassis may also be eligible for valve guide seal replacement as indicated on the chassis list. Check warranty claim history to confirm.

Chassis Affected

In an effort to continuously improve our products, PACCAR has selected specific chassis with EPA2017 MX-13 engines for re-inspection. See the chassis list.

Action

Campaign

Repairs for these chassis will be coordinated between the customer, Kenworth Field Service, and dealers.

1. Review the attached chassis list for your dealer code and schedule your customer(s) for service if their chassis is on the list.
2. If you are not using Service Management to start repair orders, review SIR for "Complete" or "In Process" next to the "E266" campaign code prior to performing this repair.
3. Prior to making an appointment for this repair, order the oil sample kit and other parts for this repair as instructed in the Parts section.
4. Follow the procedures below to take an engine oil sample and replace the camshaft.

Warranty

For repairs completed by 06/01/2021, Kenworth will pay for parts at dealer net plus applicable mark-up and labor. The Chassis List will inform you if exhaust valve guide seal replacement is required.

- Refer to the claim reference guide for additional details about each quick claim.
- 26.7 hrs. labor to replace the camshaft on T680 chassis. Use Quick Claim E266A.
- 26.6 hrs. labor to replace the camshaft on T880 or W990 chassis. Use Quick Claim E266B.
- 28.7 hrs. labor to replace the camshaft and replace exhaust valve guide seals on T680 chassis. Use Quick Claim E266C.
- 28.6 hrs. labor to replace the camshaft and replace exhaust valve guide seals on T880 or W990 chassis. Use Quick Claim E266D.

File the claim within 14 days in accordance with Warranty Policy [C-A-009](#).

Kenworth dealers may perform E266 repairs on Peterbilt chassis, but Quick Claims do not apply. For Peterbilt chassis repairs, use the long claim input form in DWWC selecting "Draft/Offline Claims", the "General" tab, and in the "Type of Claim" drop down box, select "PACCAR Engine Claim," then manually enter claim codes (Campaign #, Failure type, and SRT).

Direct Fleets and Dealer Sponsored Fleets Warranty (DSFW) are not eligible to perform this campaign.

Take-Off Parts Disposition: Return parts to PTC. Use ship code PT

CLAIM CODING			
Failure Location:	045-008-098	Work Accomplished:	35
Failure Type:	700	Responsibility Code:	01
SRT Code:	Refer the claim reference guide in the Attachments.	Claim Type:	F
		Campaign Field:	E266

Parts

Parts are available from PACCAR Parts.

All parts included in the below lists that do not have AR (As Required) must be ordered.

Oil sample kits MUST be ordered from PTC using this [order form](#). Select the **E244B Service Interval in the order form**. Oil sample kits are provided at no charge.

Table 1 Camshaft Replacement parts

Quantity	Part Number	Description
1	2245295PE	Camshaft
1	2259718PE	Camshaft Replacement Kit
1	1858032PE	Usit ring for Air compressor oil tube plug
2	1844625PE	seal ring for fuel lines
1	D42-1005	Gasket, Turbo to CAC Pipe
1	1844896PE	Gasket, Exhaust Flex Pipe
8	W34-1158	Flange Bolts M16x2, Rear Engine Mount
1	079340-21453	LOCTITE 542, 50 ML, FINE THREAD SEALANT
1	079340-43900	LOCTITE 243, 0.5 ML, THREADLOCKER
1	079340-51031	LOCTITE 510, 50 ML, GSKT ELIM, SEALANT
1	2234788PE	Oil Filter
1	2111441PE	Engine Oil Pan Gasket
1	1857669PE	Fuel filter module sealing ring

1	EC3501 U.S. EC7501 Canada	Engine Coolant (gallon) to top off cooling system
AR, up to 2 qts	Source locally	Power Steering Fluid
47 qts	Source locally	Engine Oil (qts)
AR*	1930520PE	Unit Pump to High Pressure Fuel Rail lines
* Only needed if the fuel line fails the "Evaluate the injector back leak" test or is corroded.		

Table 2 Exhaust Valve Guide Seal kit (if needed)

Quantity	Part Number	Description
1	2278242PE	Exhaust Valve Guide Seal kit

Procedure

Please follow your dealership's safety procedures and precautions to ensure the vehicle can be safely repaired and maintained.

Download the DAVIE4 Log File

1. Connect with DAVIE4.
2. Download the DAVIE4 log file and trip recorder.

Start a TCS365 Case

Follow this guide to create the TCS365 case for this bulletin to ensure the case flows to the appropriate personnel.

1. Open [TCS365](#) in Google Chrome or Microsoft Edge.
2. Select **Vehicle Support | Technical Assistance**.
3. Select **Case Type Powertrain Support** and **Case Category Engine Diagnostics**.
4. On the Powertrain Support page, fill in the following fields as follows and fill in the other fields as appropriate:
5. Subject: E266
6. Description: E266
7. Complaint/Verification Results: Chassis in for E266 repair
8. Did you perform the required steps: Yes
9. Did you attach a PDF log file: Yes
10. Warranty Dependent Case: Yes
11. Repairs and Parts Replaced: N/A
12. Diagnostic Details: N/A

Take a sample of the engine oil

Required Tools

These tools are available through the Fluid Analysis Program.

- **VPUMP0** (Vacuum Pump for Oil)
- **T5414** (Plastic Tubing, ¼ in. x 54 in.) (Min qt. 50)

Oil Sample Requirements

Gather the following information and enter it on the [survey form](#):

1. Engine Serial Number
2. Oil brand used by customer (e.g. Chevron, Exxon Mobil, Shell, etc.)
3. If the customer uses bottled oil, provide a photo of the bottle, clearly showing the viscosity and API rating.
4. Oil Type (e.g. Delo XLE Synblend), Delvac Super 1300, Rotella-T5, etc.)
5. SAE Oil Viscosity (e.g. 10W-30, 15W-40, 5W-40, etc.)
6. API Performance Rating (e.g. CI-4+, CJ-4, CK-4, etc.)
7. Odometer Reading at current oil sampling (Clearly specify units of measure (e.g. Mileage or Kilometers))
8. Odometer Reading at previous oil change (Clearly specify units of measure (e.g. Mileage or Kilometers))
9. Engine hours at current oil sampling
10. Idle hours
11. Oil sample shipping tracking number

Take the Oil Sample

1. Ensure the engine is at operating temperature.
2. Within 15 minutes of turning off the engine, take an oil sample using the vacuum pump through the engine oil feed.

i NOTE
 ALWAYS use the vacuum pump and plastic tubing to obtain the engine oil sample.

- a. Ensure the plastic tubing is properly connected to the hand pump and the container is installed on the pump.
- b. Insert the tubing as far as possible into the oil feed tube.
- c. Fill the sampling container to the ¾ mark.

▲ CAUTION
 The oil container will be hot.

- d. Seal the container.
 - e. Check oil for metallic sheen.
3. Remove the oil filter and the centrifugal filter. Check the filters for oil contamination.
 - If there is no visible contamination, place the filter in the packaging included with the sample kit.
 - If there is visible contamination, photograph the debris, add the photo to the TCS365 case, and then place the filter in the packaging included with the sample kit.
 4. Ship the oil sample as instructed on the pre-printed/pre-paid labels.

Replace the Camshaft

1. Refer to RMI for instruction.
2. Close the TCS365 case after all repairs are completed.

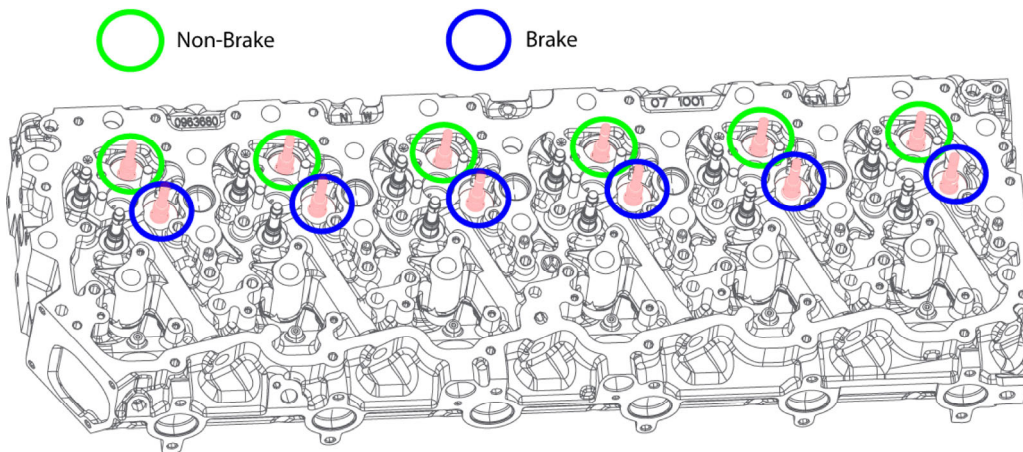
Replace the Exhaust Valve Guide Seals

Only replace the exhaust valve guide seals if it is indicated as eligible on the chassis list. Check warranty claim history to confirm.

1. Replace only the exhaust seals. See the Valve Seal replacement job in RMI for instructions and refer to the following figure for the location and part number of the new seals and the Non-Brake spring washer.

i NOTE
 Check the valve spring keepers. Reuse them if there is no obvious wear.

Figure 1 Valve Guide Seal Locations



Valve	Spring Washer	Seal
Non-Brake Exhaust Valve	2182962	1819065
Brake Exhaust Valve	N/A	2162785

Attachments

[DealerChassis List](#)

 [Claim Reference Guide](#)

Authored by: OF

Access to PACCAR's Enterprise Portal is provided as a benefit of doing business with PACCAR. All applications and content accessed through this system are confidential and proprietary and the property of PACCAR Inc and its suppliers, and must be kept strictly confidential pursuant to the contract licensing such access. Disclosure, publication, release or distribution of any material found on PACCAR systems to any person other than employees with a need to know such information is strictly prohibited. All activity on this system is monitored. If PACCAR suspects or discovers any unauthorized activity, access may be immediately terminated without prior notification. Violators may be subject to legal action.

© Copyright 2020 PACCAR Inc. All rights reserved. We welcome your [feedback](#) on this page. For technical questions or concerns about this page, please contact the [DealerNet Webmaster](#).