

# E316: PACCAR MX-13 EPA 2021 Main Bearing Cap Bolts - Proactive Bolt Upgrade

Number

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E316

Subject

PACCAR MX-13 EPA 2021 Main Bearing Cap Bolts - Proactive Bolt Upgrade

Date

5/20/2024

Revision

**07/31/2026:** 235 chassis have been removed from the chassis list and unflagged in PRWS due to expiration of applicable warranty coverage. 5 chassis have been added to the chassis list. The total chassis population is now 15,637.

**07/09/2026:** The Condition, Chassis Affected, Service Action, Warranty, and Procedure sections have been updated to include the latest prognostics bulletin verbiage.

**04/30/2025:** Warranty section updated to clarify how to file a claim when broken bolt damage inspection results are level 1 or higher. Also clarifies claim filing if engine is replaced with a short block or a long block.

**04/18/2025:** Added 4,989 chassis. Total chassis count 15,867

**03/24/2025:** Added 13 chassis. Total chassis count 10,878.

**03/21/2025:** Added 1,470 chassis. Total chassis count 10,865.

**03/19/2025:** Broken bolt inspection procedure added, and repair procedures updated to include reference to inspection if broken bolts are found. Updated warranty claim Recommended Repair and SRT codes.

**12/20/2024:** Added 1 chassis. Total chassis count 9,395

**11/13/2024:** 1 chassis removed from list. Total chassis count 9,394.

**10/31/2024:** Warranty section updated with 2 additional Recommended Repairs (E316C and E316D) to account for differences in engine oil part numbers and quantities between U.S. and Canadian repairs.

Parts table updated with Canadian oil part number 257000-990C.

**10/01/2024:** Added 174 chassis. Total chassis count 9,395.

**09/18/2024:** Added 6,316 chassis. Total chassis count 9,221.

**09/04/2024:** Affected engine serial number cutoff updated FROM Y313946 TO Y314580.

**08/29/2024:** Added 391 VINs to chassis list. Total chassis count 2,905.

**08/16/2024:** Added oil pan drain plug (1982821PE) to parts list and included QR code to access information about Programmable Torque Tool.

**08/01/2024:** Added 572 VINs to the chassis list. Total chassis count 2,514.

**07/23/2024:** Updated verbiage in bulletin/procedures to reflect change to name of "Nut Runner Tool" to "Programmable Torque Tool."

**07/10/2024:** Added oil pan gasket (2111441PE) to parts list.

**07/01/2024:** Added 1,295 VINs to the chassis list. Total chassis count 1,942.

**06/25/2024:** Updated verbiage in bulletin/procedures to reflect change to name of "Nut Runner Tool" to "Programmable Torque Tool".

**05/21/2024:** Updated title, and updated verbiage in bulletin to clarify when to perform repair.

**05/20/2024:** Added 647 VINs to the chassis list. Total chassis count 647.

## Condition

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**Schedule this proactive upgrade with the next service event. A complimentary oil change is included.**

Leveraging PACCAR's advanced Prognostic prediction algorithms, certain chassis equipped with PACCAR EPA 2021 MX-13 engines will receive proactive replacement instructions for the main bearing cap bolts to maximize uptime and maintain optimal performance.

E316 must be flagged and open in SIR at the time of the repair order (RO) open date to qualify.

Only trucks with an active standard or applicable extended warranty will be included in this campaign. Trucks flagged in SIR whose warranty expires will be removed. If a repair is performed on a chassis

flagged in SIR after warranty expiration, PACCAR will consider payment on a case-by-case basis.

## Improvement Identified



Proactive Upgrade  
During Free Oil Service



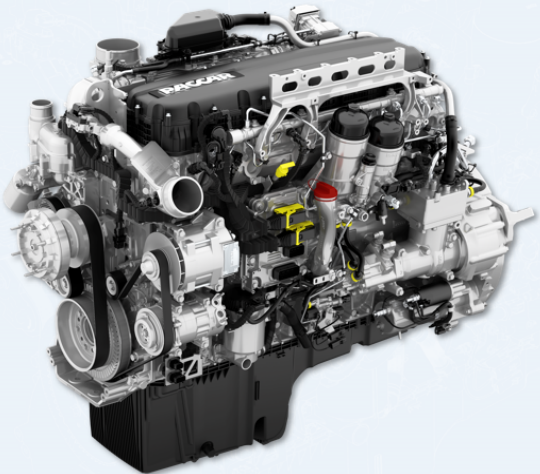
Upgraded Bolts



Powered By Prognostics



Covered Under MX  
Warranty



**MX-13**

## Chassis Affected

Certain Peterbilt model 365, 389, 567, and 579 chassis equipped with PACCAR MX-13 EPA 2021 engines with engine serial number Y314580 and earlier will be identified through the Prognostic Program in SIR as described above.

## Action

### Campaign

**Schedule this proactive upgrade with the next service event. A complimentary oil change is included.**

Service all chassis affected that enter your dealership, even if the customer has no issue with the chassis.

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. In Service Management, select campaign **E316** to add it to the case. If the unit is released back into service without performing the repair, make sure to also release the campaign in Service

## Management.

3. If you are not using Service Management to start repair orders, review SIR for Complete next to the **E316** campaign code prior to performing this repair.
4. Follow the procedures in the Links section to inspect, remove, and replace the main bearing cap bolts.

## Warranty

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Starting on **05/20/2024** Peterbilt will pay for parts at dealer net plus applicable mark-up and labor:

PACCAR will identify and load chassis to PRWS and SIR.

E316 must be flagged and open in SIR at the time of the RO open date to qualify.

### FOR U.S. REPAIRS (US oil part number and oil qty in gallons)

- **3.8 hours** labor to replace the main bearing cap bolts WITHOUT Programmable Torque Tool, no broken bolts found. Select Recommended Repair Code **E316A**. (oil part # 257000-990)
- **3.0 hours** labor to replace the main bearing cap bolts WITH Programmable Torque Tool, no broken bolts found. Select Recommended Repair Code **E316B**. (oil part # 257000-990)
- **3.8 hours** labor to replace the main bearing cap bolts WITHOUT Programmable Torque Tool, with broken bolt(s) found. Select editable Recommended Repair Code **E316E** (oil part # 257000-990).  
***Edit the recommended repair to include the number of broken bolts found and inspections performed. This recommended repair only applies if ALL inspections were level 0.***
- **3.0 hours** labor to replace the main bearing cap bolts WITH Programmable Torque Tool, with broken bolt(s) found. Select editable Recommended Repair Code **E316F** (oil part # 257000-990).  
***Edit the recommended repair to include the number of broken bolts found and inspections performed. This recommended repair only applies if ALL inspections***

*were level 0.*

## FOR CANADIAN REPAIRS (Canadian oil part number and oil qty in liters)

- **3.8 hours** labor to replace the main bearing cap bolts WITHOUT Programmable Torque Tool, no broken bolts found. Select Recommended Repair Code **E316C**. (oil part # 257000-990C)
- **3.0 hours** labor to replace the main bearing cap bolts WITH Programmable Torque Tool, no broken bolts found. Select Recommended Repair Code **E316D**. (oil part # 257000-990C)
- **3.8 hours** labor to replace the main bearing cap bolts WITHOUT Programmable Torque Tool, with broken bolt(s) found. Select editable Recommended Repair Code **E316G** (oil part # 257000-990C).  
*Edit the recommended repair to include the number of broken bolts found and inspections performed. This recommended repair only applies if ALL inspections were level 0.*
- **3.0 hours** labor to replace the main bearing cap bolts WITH Programmable Torque Tool, with broken bolt(s) found. Select editable Recommended Repair Code **E316H** (oil part # 257000-990C).  
*Edit the recommended repair to include the number of broken bolts found and inspections performed. This recommended repair only applies if ALL inspections were level 0.*

## FOR U.S. OR CANADIAN REPAIRS WHERE BROKEN MAIN CAP BOLTS ARE FOUND AND DAMAGE IS LEVEL 1 OR HIGHER.

- Use editable Recommended Repair Code **E316J**.
  - Use SRT **B24-21C** for each main bearing cap removed and inspected.
  - Use SRT **B24-21D** for each connecting rod bearing cap removed and inspected.
  - **Edit Recommended Repair to include number of broken bolts found and inspections performed. This Recommended Repair only applies if ALL inspections were Level 1 or higher.**
- File a supplemental claim for engine R&R and input **E316** in the campaign code section.
  - **Short block R&R includes all labor required to access the main bearing cap bolts. If a long block was installed, please use SRT B24-21E for main bearing cap bolt access.**
- File an additional claim for extraordinary circumstances. A recommended repair for standard labor must be filed first.
- Peterbilt dealers may perform E311 repairs on Kenworth chassis, but Recommended Repair Codes do not apply. For Kenworth chassis repairs, use the long form claim.
- If filing a claim for cross-division repairs, be sure to select the Kenworth specific SRT code shown in the PRWS Claim Coding table below.

- File the claim within 14 days in accordance with the Warranty Policy.

**Take-Off Parts Disposition:** Destroy 30 days after claim is paid.

| PRWS CODING TABLE              |             |                             |                                                                                                                                                                   |                                                                                                                                                                   |
|--------------------------------|-------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Campaign Code:</b>          | E316        | <b>Campaign Type:</b>       | Field Repair                                                                                                                                                      |                                                                                                                                                                   |
| <b>Claim Category:</b>         | Engine      | <b>Repair Type:</b>         | Proactive                                                                                                                                                         |                                                                                                                                                                   |
| <b>Customer Concern Code:</b>  | 203         | <b>Causal Code:</b>         | 12                                                                                                                                                                |                                                                                                                                                                   |
| <b>Corrective Action Code:</b> | 03          | <b>Responsibility Code:</b> | Camp                                                                                                                                                              |                                                                                                                                                                   |
| <b>Failure Location:</b>       | 045-002-009 | <b>Causal Part:</b>         | 2295490PE                                                                                                                                                         |                                                                                                                                                                   |
| <b>Supplier Code:</b>          | N/A         | <b>SRT Code:</b>            | <b><u>Peterbilt SRT Code</u></b><br><b>B24-21A</b><br><b>3.8 hours</b><br>R&R main bearing cap bolts per E316 repair procedure (Without Programmable Torque Tool) | <b><u>Kenworth SRT Code:</u></b><br><b>B24-19A</b><br><b>3.8 hours</b><br>R&R main bearing cap bolts per E316 repair procedure (Without Programmable Torque Tool) |
|                                |             |                             | <b><u>Peterbilt SRT Code:</u></b><br><b>B24-21B</b><br><b>3.0 hours</b><br>R&R main bearing cap bolts per E316 repair procedure (With Programmable Torque Tool)   | <b><u>Kenworth SRT Code:</u></b><br><b>B24-19B</b><br><b>3.0 hours</b><br>R&R main bearing cap bolts per E316 repair procedure (With Programmable Torque Tool)    |
|                                |             |                             | <b><u>Peterbilt SRT</u></b>                                                                                                                                       | <b><u>Kenworth</u></b>                                                                                                                                            |

|  |  |  |                                                                                                                                                                  |                                                                                                                                                                 |
|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  |  | <b><u>Code:</u></b><br><b>B24-21C</b><br><b>0.1 hours</b><br>Inspect 1 main bearing cap mating surfaces and bearing per bulletin inspection procedure.           | <b><u>SRT Code:</u></b><br><b>B24-19C</b><br><b>0.1 hours</b><br>Inspect 1 main bearing cap mating surfaces and bearing per bulletin inspection procedure.      |
|  |  |  | <b><u>Peterbilt SRT Code:</u></b><br><b>B24-21D</b><br><b>0.3 hours</b><br>Inspect 1 connecting rod cap and bearing surfaces per bulletin inspection procedures. | <b><u>Kenworth SRT Code:</u></b><br><b>B24-19D</b><br><b>0.3 hours</b><br>Inspect 1 connecting rod cap and bearing surfaces per bulletin inspection procedures. |
|  |  |  | <b><u>Peterbilt SRT Code:</u></b><br><b>B24-21E</b><br><b>1.1 hours</b><br>Access to main cap bolts per Bulletin Procedure E316 – Broken Bolts Found.            | <b><u>Kenworth SRT Code:</u></b><br><b>B24-19E</b><br><b>1.1 hours</b><br>Access to main cap bolts per Bulletin Procedure E316 – Broken Bolts Found.            |

*For campaign filing questions, reference Peterbilt Warranty Procedure Manual – Section 8.*

## Parts

Parts are available from PACCAR Parts.

| Quantity | Part Number | Description                     |
|----------|-------------|---------------------------------|
| 14       | 2295490PE   | Bolt, Main Bearing Cap, M18X180 |
| 2        | 1608394PE   | Ring-Sealing                    |
| 2        | 1608393PE   | Ring-Sealing                    |

|                        |                |                                                                           |
|------------------------|----------------|---------------------------------------------------------------------------|
| 1                      | 2234788PE      | PACCAR Oil Element                                                        |
| 11 Gallons             | 257000-990     | <b>(U.S Part Number)</b><br>CHV DELO<br>400XLE SYNB<br>10W30 CK-4<br>BULK |
| 42 Liters              | 257000-990C    | <b>(Canadian Part Number)</b><br>CHV DELO<br>400XLE<br>SYNB LN10W         |
| 1                      | 2111441PE      | Gasket, Oil Pan                                                           |
| 1                      | 1982821PE      | Drain Plug (Oil Pan Plug)                                                 |
| Partial Container Used | Source Locally | 6mL Loctite 243 or equivalent                                             |
| Partial Container Used | Source Locally | Loctite 7063 or equivalent                                                |
| Partial Container Used | Source Locally | Loctite SI 5970 or equivalent                                             |
| Up to 5                | Source Locally | Cable Ties                                                                |

An Ingersoll Rand MX Programmable Torque Tool Kit is now available to order via PACCAR Parts to reduce labor time and increase the torque accuracy when installing the main bearing cap bolts. **This tool is NOT reimbursable through this bulletin.**

Scan the QR code below to learn more about this new tool:

**For videos, safety, and parts information please scan the QR code.**



[PACCARMPIQX - Rhino Tool House](#)

## Procedure

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### WARNING!

**Repair or maintenance procedures may pose a safety risk in limited circumstances. You must read all procedure steps before performing any work and follow all dealership safety procedures or precautions. Failure to comply may result in death, personal injury, equipment damage, or property damage.**

Please see the Links section below for procedures on inspecting, removing, and replacing the main bearing cap bolts.

## Links

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[E316: PACCAR MX-13 EPA 2021 Main Bearing Cap Bolts - Proactive Bolt Upgrade - Procedure - Without Programmable Torque Tool](#)

[E316: PACCAR MX-13 EPA 2021 Main Bearing Cap Bolts - Proactive Bolt Upgrade - Procedure - With Programmable Torque Tool](#)

[E316: PACCAR MX-13 EPA 2021 Main Bearing Cap Bolts - Proactive Bolt Upgrade - Broken Bolt Inspection](#)

[E316: PACCAR MX-13 EPA 2021 Main Bearing Cap Bolts - Proactive Bolt Upgrade - Chassis List](#)