

T012 - PACCAR TX-12 Main Drive Gear Premature Wear

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Number

T012

Description

T012 - PACCAR TX-12 Main Drive Gear Premature Wear

Section

Transmission - 26

Subject

PACCAR TX-12 Main Drive Gear Premature Wear

Date

12/2/2021

Revision

12/28/2021: Changed SRT 026-526 to B26-526.

12/21/2021: Updated chassis list.

12/14/2021: Changed failure location code to 026-001-052 and changed supplier code to 21888AB.

Condition

Drivers of vehicles equipped with PACCAR TX-12 transmissions may experience harsh shifts and gear grinding noise. Premature Main Drive Gear damage may occur due to clutch housing and main case countershaft bearing bore wear.

Chassis Affected

Certain T680 and T880 model vehicles equipped with PACCAR TX-12 transmissions from transmission model start of production through transmission Serial Number Z0076113.

Action

Campaign

Service all flagged vehicles 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. If you are not using Service Management to start repair orders, review SIR for "Complete" next to the "T012" campaign code prior to performing this repair.
3. Follow the procedure below to determine correct transmission repair path.

Warranty

Through Standard Warranty, any applicable Extended Warranty or for repairs completed by 01/01/2023, whichever is greater, Kenworth will pay for parts at dealer net plus applicable mark-up and labor:

- If there is a shifting or grinding complaint prior to beginning the repair, additional diagnostics will be needed. Refer to the TCS guide at the bottom of the Procedure section.
 - Transmissions that are experiencing this condition must have a documented repair path provided by Eaton.
 - Include the Eaton case number in the claim story.
- For vehicles with less than 250,000 miles, **8.0 hours** to install the parts in the clutch housing front cover kit. Includes clutch recalibration, transmission R&R, test drive and, if necessary, download of Snapshot and VPA (Service Activity Report for Eaton). Use quick claim **T012A**.
- For vehicles with 250,000 miles or more:
 - The transmission data files must be submitted by the technician to Eaton as detailed in the Procedure section. If the files have not been submitted, claims may be denied.
 - If directed by Eaton to install the clutch housing front cover kit, file quick claim **T012A**.
 - **If Eaton requires any other repair path, file quick claim T012B. Edit the claim appropriately for the specific repair and ensure that KA-4230 is in the claim story.**
 - In the event the dealer has accepted a no-charge transmission, please reference the direct ship no-charge transmission part mark-up reimbursement procedure in [CC091](#). Please include the approved Prior Approval (PA) number in the warranty claim.
 - For dealers filing claims through DWC, use the information in the DWC table to file a long form claim.
- File an additional claim for extraordinary circumstances, referencing T012. A quick claim for standard labor must be filed first.
- File the claim within 14 days in accordance with [CA009](#).
- For claims filed using DWC, direct Fleets and Dealer Sponsored Fleets (DSF) may not use quick claims when submitting for repairs on chassis related to this bulletin but must submit a long form specifying part numbers, quantities, and pricing for parts used in the repair. Submittal of a Quick Claim for repairs made by the Fleet will be denied as pricing is incorrect on quick claims.

Take-Off Parts Disposition: Unless otherwise instructed through direct contact with Eaton, destroy take-off parts 30 days after claim is paid.

PRWS CLAIM CODING			
Campaign Code:	T012	Campaign Type	Field Repair
Claim Category:	PACCAR Transmission	Repair Type	Proactive
Customer Concern Code	089	Causal Code	44
Corrective Action Code	03	Responsibility Code:	CampSup
Failure Location	026-001-052	Causal Part	10001049
Supplier Code	21888AB	SRT Code	<p>B26-526 1.0 hr. R&R clutch housing front cover and seals. Includes transmission data file submission to Eaton if necessary.</p> <p>026-507 0.5 hrs. clutch re-calibration.</p> <p>026-501 6.0 hrs. PACCAR or Eaton Endurant Transmission R&R</p> <p>026-451 0.5 hr. Road Test / Test Drive</p>

CLAIM CODING			
Failure Location:	026-001-052	Work Accomplished:	21
Failure Type:	700	Responsibility Code:	05
SRT Code:	<p>B26-526 1.0 hr. R&R clutch housing front cover and seals. Includes transmission data file submission to Eaton if necessary.</p> <p>026-507 0.5 hrs. clutch re-calibration.</p> <p>026-501 6.0 hrs. PACCAR or Eaton Endurant Transmission R&R</p> <p>026-451 0.5 hr. Road Test / Test Drive</p>	Claim Type:	C
Vendor Code:	21888AB	Campaign Field	T012

Parts

Parts are available from PACCAR Parts.

Quantity	Part Number	Description
1	E74-6039	Clutch Housing Front Cover Kit
7.5-8.5 Liters	Source Locally	PS-386 Lube or equivalent

Procedure

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

- **If there is a shifting or grinding complaint prior to beginning the repair**, additional diagnostics will be needed. Refer to the TCS Claim Guide to submit a TCS case.
- **For vehicles with less than 250,000 miles**, refer to the attached procedures to R&R the transmission and install the Clutch Front Cover and Seals Kit.
- **For vehicles with 250,000 miles or more**, submit the Snapshot and VPA data and refer to the TCS Claim Guide to submit a TCS case.

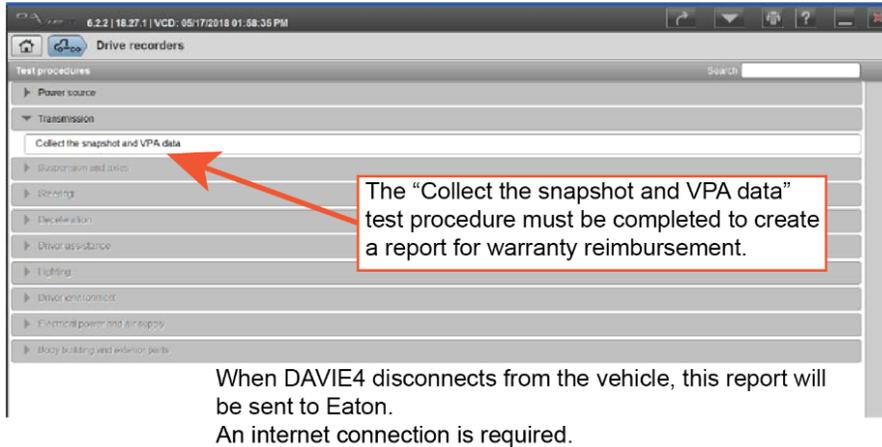
 NOTE
<p>If the data is not submitted by the technician during this process, the claim processing will be delayed.</p>

1. Check clutch housing for "MDG4491" marking, indicating a previous repair. If marked as repaired, no further action is required.



2. In DAVIE4, go to **Drive Recorders | Transmission | Collect the Snapshot and VPA data**.
3. Click **Start Test Procedure**.
4. Disconnect DAVIE4 after the test is complete. The data will be sent electronically when DAVIE4 is disconnected.
5. Follow up through the PACCAR Case File System to confirm the file was received – 1-800-944-0251 and select the option for Transmission Support. A repair path will be determined based on the Snapshot and

VPA data.



When DAVIE4 disconnects from the vehicle, this report will be sent to Eaton.
An internet connection is required.

TCS365 Case Creation Guide

This is only required if the customer complains of hard shifting or grinding prior to repair/diagnosis.

Follow this guide to create a TCS365 case for this bulletin to ensure the case is distributed to the appropriate group.

Follow the exact steps below or a delay in change processing will occur.

1. Open [TCS365](#) in Google Chrome or Microsoft Edge.
2. Select **Vehicle Support | Technical Assistance**.
3. Select *Case Type* **Powertrain Support** and *Case Category* **Transmission Diagnostics**.
4. On the Powertrain Support page, fill in the following fields as follows and fill in the other fields as appropriate:
 - o Subject: T012 TX-12 Main Drive Gear Premature Wear.
 - o Description: T012
 - o Complaint/Verification Results: T012 TX-12 Main Drive Gear Premature Wear
 - o Did you perform the required steps: Yes
 - o Did you attach a PDF log file: No – Sent via DAVIE4 Snapshot and VPA data.
 - o Warranty Dependent Case: Yes
 - o Repairs and Parts Replaced: N/A
 - o Diagnostic Details: N/A

Mark Clutch Housing to Indicate Completed Repair

1. After the appropriate repair is completed, clean the area of the clutch housing shown below.
2. Using a paint pen, write "MDG4491" in the cleaned area to indicate that the repair has been completed.



Links

[Dealer/Chassis List](#)

 [Procedure - Clutch housing front cover kit](#)

Authored by: OF

Clutch Housing Front Cover Kit

Special Instructions

None

Special Tools

- ServiceRanger
- Transmission Assembly Lube (Lubegard® Assemblies Goo Firm Tack - Green #19250 or equivalent)

NOTICE: Only use the specified transmission assembly lube indicated above. Other types of

assembly lube or grease reduce O-ring effectiveness.

- Non-Chlorinated Brake Cleaner

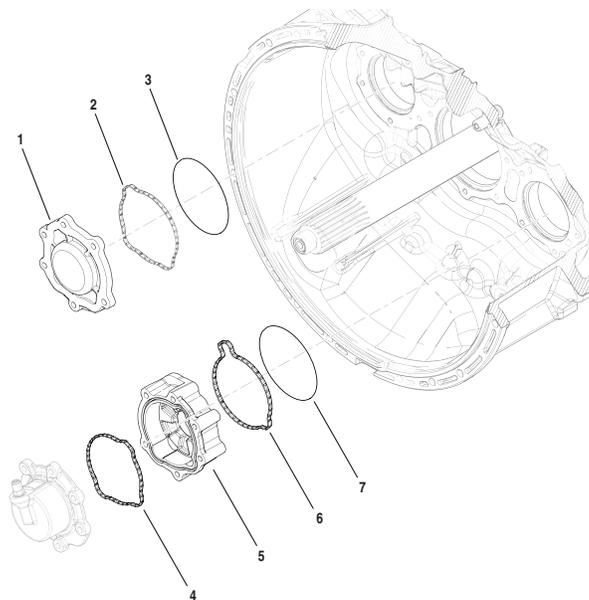


DANGER: Do not handle non-chlorinated brake cleaner until all manufacturer precautions have been read and understood. Failure to follow precautions will result in serious personal injury or death.



CAUTION: Avoid contact between non-chlorinated brake cleaner and the transmission plastic components, electrical wiring and connectors. Failure to avoid contact will result in transmission component damage.

Component Identification



K-4491

	Description	P/N	QTY
1	Upper Countershaft Cover	10004215	1
2, 4	Upper Countershaft Cover/Inertia Brake Housing (Front) Seal	10001048	2
3, 7	Upper Countershaft Cover/Inertia Brake Housing Countershaft Bearing O-ring	10004217	2
5	Inertia Brake Housing	10004216	1
6	Inertia Brake Housing (Rear) Seal	10001049	1

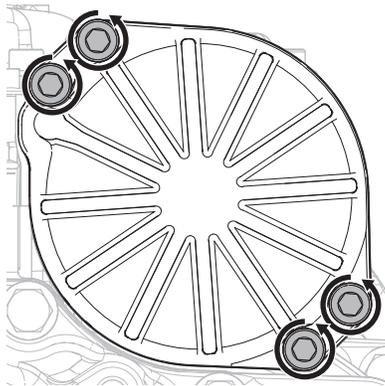
Manually Vent Linear Clutch Actuator (LCA)

1. Key off.
2. Set vehicle parking brake and chock wheels.

! **WARNING:** Apply vehicle parking brake and follow vehicle manufacture parking instructions. Failure to follow these instructions could cause unintended vehicle movement and may result in major vehicle component damage, severe injury or death.

3. Loosen the 4 Linear Clutch Actuator (LCA) cap screws 1-2 turns each with a T45 Torx.

Note: Residual air pressure in the LCA cylinder exhausts between the LCA and Mechatronic Transmission Module (MTM) housing when the cap screws are loosened.



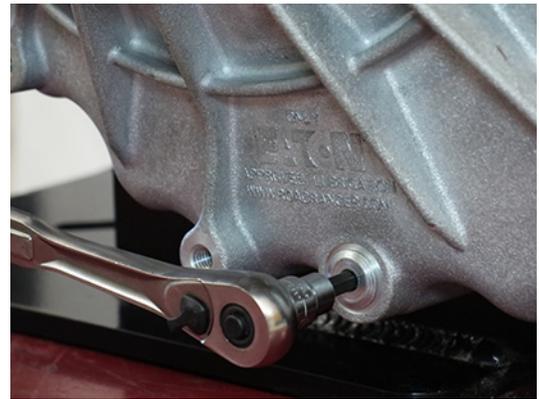
4. Tighten the 4 LCA to MTM T45 cap screws and torque to 23-27 Nm (17-21 lb-ft).

Drain Oil

1. Locate the Oil Drain Plug on the back of the rear housing.
2. Place a suitable container under the Oil Drain Plug.

Note: If reusing oil, use a clean container free of contamination and debris.

3. Remove the Oil Drain Plug with a 6 mm hex key and drain the oil.



4. Inspect Oil Drain Plug and O-ring for damage. If damaged, replace the Oil Drain Plug; O-ring is serviced with plug.
5. Install the Oil Drain Plug (6 mm) and torque to 24.5-29.5 Nm (18-22 lb-ft).

NOTICE: Do not over-torque drain plug or transmission damage may occur.



Remove Transmission

1. Disconnect negative battery cable.
2. Refer to OEM guidelines for transmission removal.

Remove Release Bearing and Clutch Release Yoke

1. Remove the Release Bearing by sliding the bearing off the Input Shaft Cover.



2. Pull to free the lower Clutch Release Yoke socket from the lower pivot on the clutch housing.



3. Pull to free the upper Clutch Release Yoke socket from the Linear Clutch Actuator (LCA) rod end.



Remove Upper Countershaft Cover

1. Remove the 6 Upper Countershaft Cover 13 mm cap screws and remove cover. The original cover is not to be reused.



Install Upper Countershaft Cover Countershaft Bearing O-ring

1. Clean any residual oil from the Upper Countershaft Bearing outer diameter using Non-Chlorinated Brake Cleaner.

2. Install the Upper Countershaft Cover Countershaft Bearing O-ring (10004217) onto the Upper Countershaft Bearing.

Note: O-ring may fall out of position after installation. Ensure to clean any residual oil from the bearing and roll the O-ring on to the bearing using the tips of your fingers pushing on the inner diameter of the O-ring. If necessary, apply a small amount of transmission assembly lube at the 3, 6, 9 and 12 o'clock positions to the outer diameter of the bearing.



Install Upper Countershaft Cover

1. Clean the sealing surfaces on the clutch housing and the new Upper Countershaft Cover.

Note: The new Upper Countershaft Cover has a chamfer that is required for the bearing O-ring.



2. Install the new Upper Countershaft Cover O-ring (10001048) into the groove until fully seated.

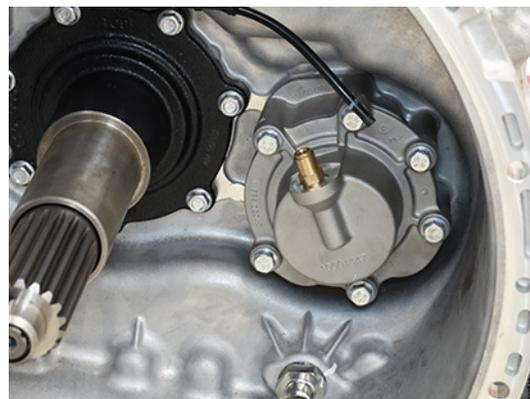


3. Install the new Upper Countershaft Cover and six 13 mm cap screws to the clutch housing and torque to 21-25 Nm (16-19 lb-ft) in a criss-cross pattern.



Remove Lower Countershaft Cover and Inertia Brake

1. Depress and hold collar on air line fitting and disconnect the air line from the Inertia Brake Cover.



2. Remove the 6 Inertia Brake Cover 13 mm cap screws.



3. Remove the Inertia Brake Cover and Housing as an assembly. The original housing is not to be reused.



4. Ensure the Inertia Brake Piston Pin and Return Spring remain in the Lower Countershaft.



Disassemble Inertia Brake

1. Remove the clutch pack from the Inertia Brake Housing.



2. Remove the 2 wear guides from the Inertia Brake Housing.



Assemble Inertia Brake

1. Clean sealing surfaces on the clutch housing and the new Inertia Brake Housing.

Note: The new Inertia Brake Housing has a chamfer on the Clutch Housing side that is required for the bearing o-ring.



2. Insert the O-ring into the groove on the rear of the Inertia Brake Housing until fully seated.



3. Insert the O-ring into the groove on the front of the Inertia Brake Housing until fully seated.



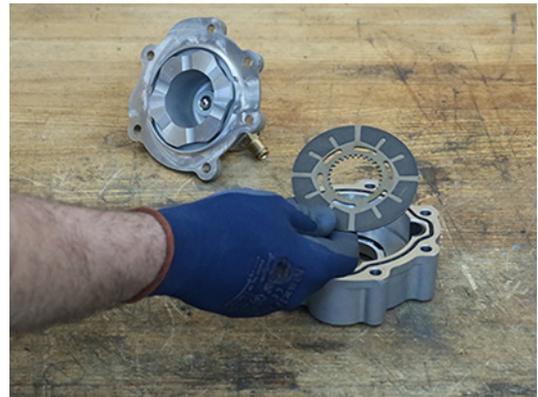
4. Install the 2 Wear Guides in the Inertia Brake Housing.



5. Install the inertia brake clutch pack in the order shown below:

- 1 Steel Disc,
- 1 Friction Disc,
- 2 Steel Discs,
- 1 Friction Disc,
- 2 Steel Discs,
- 1 Friction Disc, and
- 1 Steel Disc.

Note: Steel Discs align with Wear Guides. Friction Discs spline to the lower countershaft.



6. Place Inertia Brake Cover and Piston on the Housing. Align the bolt holes.

Install Inertia Brake Housing Countershaft Bearing O-ring

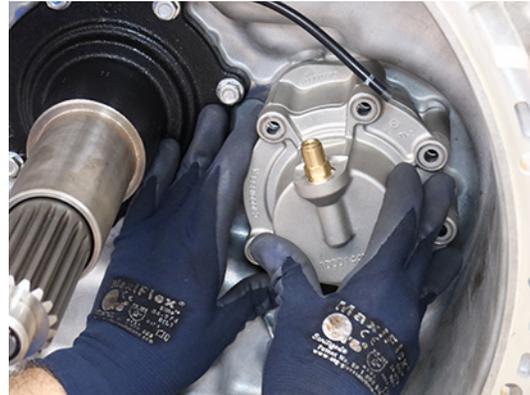
1. Clean any residual oil from the Lower Countershaft Bearing outer diameter using Non-Chlorinated Brake Cleaner.
2. Install the Inertia Brake Housing Countershaft Bearing O-ring (10004217) onto the Lower Countershaft Bearing.

Note: O-ring may fall out of position after installation. Ensure to clean any residual oil from the bearing and roll the O-ring on to the bearing using the tips of your fingers pushing on the inner diameter of the O-ring. If necessary, apply a small amount of transmission assembly lube at the 3, 6, 9 and 12 o'clock positions to the outer diameter of the bearing.



Install Inertia Brake Cover and Housing

1. Install the Inertia Brake Cover and the new Housing as an assembly over the Lower Countershaft, rotate the assembly to align the Friction Discs to the Lower Countershaft splines and seat the assembly to the clutch housing.



2. While holding the Inertia Brake Housing to the clutch housing, remove the Inertia Brake Cover.

NOTICE: Ensure the Friction Discs are splined to the lower countershaft and Wear Guides are fully seated.



3. If removed, install the Return Spring into the Lower Countershaft.



6. Install the six 13 mm cap screws and torque to 21-25 Nm (16-19 lb-ft) in a criss-cross pattern.



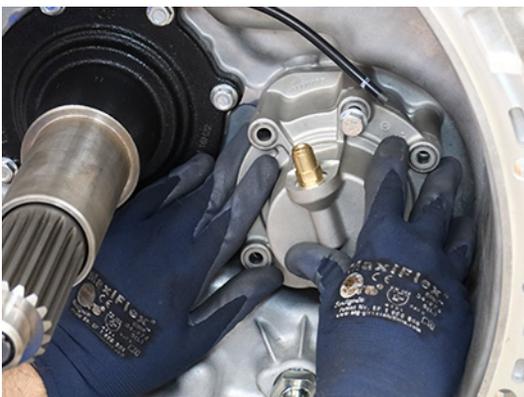
4. If removed, install the Piston Pin into the Lower Countershaft.



7. Insert air line in push-to-connect fitting on the Inertia Brake Cover.



5. Install the Inertia Brake Cover onto the housing.

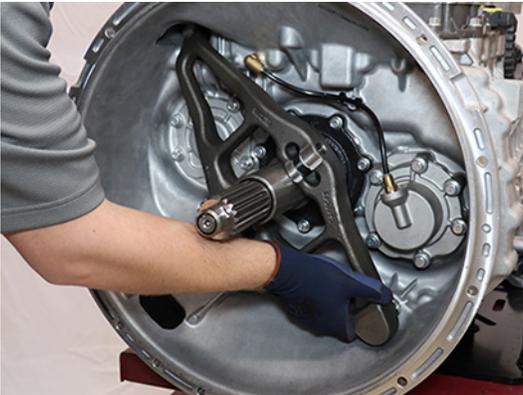


Install Release Bearing and Clutch Release Yoke

1. Install the upper Release Yoke socket over the rod end of the Linear Clutch Actuator (LCA) and press until attached.



2. Install the lower Release Yoke socket over the lower pivot on the clutch housing and press until attached.



3. Slide the Release Bearing over the input shaft and into the Release Yoke.



4. Push the upper end of the Release Yoke back until it locks to reset the LCA.

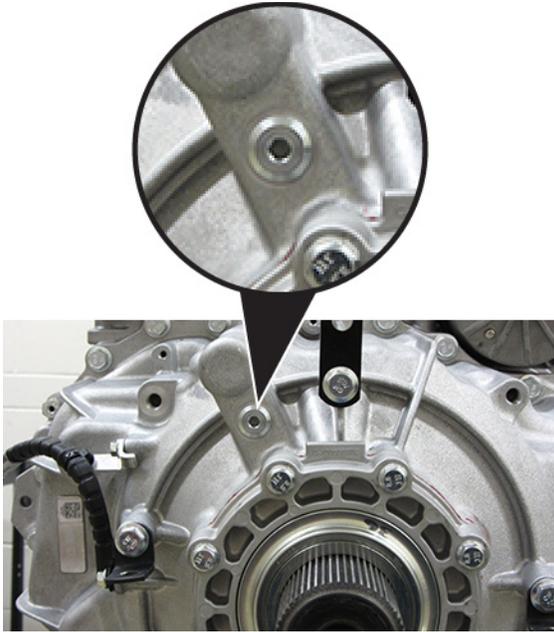


Install Transmission

1. Refer to OEM guidelines for transmission installation.

Fill Oil

1. Remove the Oil Fill Plug with a 6 mm hex key.

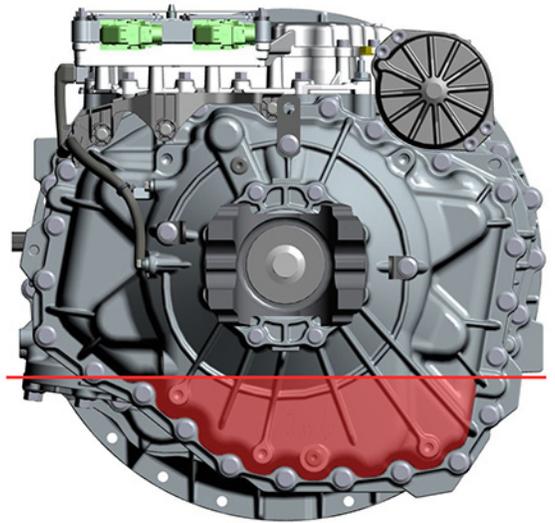
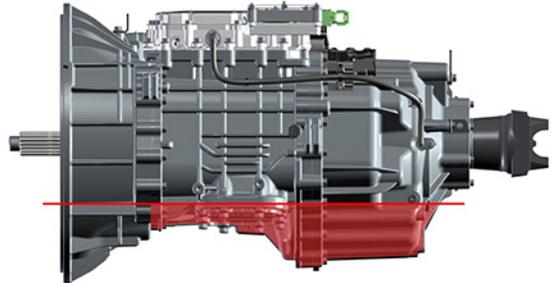


2. Place a suitable container under the Oil Check Plug and remove the Oil Check Plug with a 6 mm hex key.



3. Fill the transmission with PS-386 lube until a small amount of oil runs out of the Oil Check Plug hole.

Note: Fill capacity is approximately 7.5-8.5 liters (16-18 pints) depending on the transmission angle.



4. Inspect Oil Check Plug and O-ring for damage. If damaged, replace the Oil Check Plug; O-ring is serviced with plug.

5. Install the Oil Check Plug (6 mm) and torque to 24.5-29.5 Nm (18-22 lb-ft).

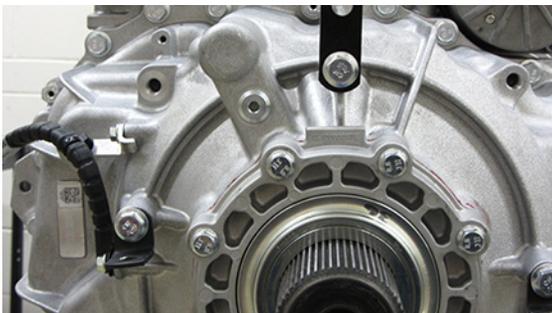
NOTICE: Do not over-torque the Oil Fill Plug or transmission damage may occur.



6. Inspect Oil Fill Plug and O-ring for damage. If damaged, replace the Oil Fill Plug; O-ring is serviced with plug.
7. Install the Oil Fill Plug (6 mm) and torque to 24.5-29.5 Nm (18-22 lb-ft).

NOTICE: Do not over-torque the Oil Fill Plug or transmission damage may occur.

NOTICE: If PTO-equipped, start the engine and run for 1 to 2 minutes to fill the PTO with oil, key off and repeat the Oil Fill Procedure.



8. Connect negative battery cable.

Perform Transmission Service Routines

1. Key on with engine running.
2. Allow air pressure to build to governor cut-off.
3. Connect ServiceRanger.
4. Go To "Service Routines".

5. Select "Start" Clutch Calibration and follow on-screen prompts.
6. Key off and wait 1 minute.
7. After waiting 1 minute, key on with engine off.
8. Connect ServiceRanger.
9. Go To "Fault Codes".
 - If an Active fault code sets, refer to Endurant Troubleshooting Guide TRTS0950.
 - If NO Active fault codes set, select "Clear Eaton Faults" and follow on-screen prompts.
10. Disconnect ServiceRanger.
11. Key off.

Date à être déterminée

[Premier NIV]
Nom du client
Adresse
Ville, province, code postal

Balayez ce code à barres afin d'accéder
à Dealer Locator de Kenworth



Objet : Campagne PSB T012 – Usure prématurée de la prise principale de puissance sur TX-12 de PACCAR

Cher client Kenworth,

Votre véhicule (cité à la présente), équipé d'une transmission TX-12 de PACCAR, est admissible à une campagne afin de remplacer le couvercle avant du carter d'embrayage par une pièce améliorée. Le remplacement du couvercle avant augmentera la longévité de la prise principale de puissance de la transmission.

L'amélioration concerne...	Couvercle avant du carter d'embrayage
Ce que fera votre concessionnaire...	Les concessionnaires installeront le couvercle avant du carter d'embrayage par une pièce améliorée
Ce que vous devez faire ...	Communiquer avec votre concessionnaire Kenworth afin de prendre rendez-vous pour la réparation

Veillez communiquer avec un concessionnaire Kenworth afin de prendre rendez-vous pour ce travail. Si vous avez déjà fait effectuer ce travail, veuillez ignorer la présente. Vous pouvez trouver votre concessionnaire Kenworth le plus près en consultant Dealer Locator sur le site Web www.Kenworth.com.

Au moment de communiquer avec le concessionnaire Kenworth de votre choix, vous référer à la campagne PSB **T012** ainsi qu'au NIV cité à la présente. Le travail nécessitera environ **12.0** heures selon la configuration du véhicule et la disponibilité du concessionnaire et sera effectué sans frais s'il est complété avant le **01/12/2022**. Nous nous excusons pour cet inconvénient mais sollicitons votre collaboration afin d'assurer votre satisfaction continue envers les produits Kenworth.

Si vous avez déjà fait effectuer cette réparation avant la réception de la présente, vous pourriez être admissible à un remboursement de vos frais pour avoir remédié sans préavis au problème concerné par cette campagne. Veuillez communiquer avec votre concessionnaire Kenworth pour plus d'information.

Si vous avez besoin de plus d'information au sujet de cette campagne ou rencontrez des difficultés à prendre rendez-vous pour cette réparation, veuillez communiquer avec le Service à la clientèle de Kenworth en fournissant votre nom, la ville et la province de votre concessionnaire, votre numéro de téléphone, votre adresse courrier (optionnelle), les 8 derniers chiffres de votre NIV, le numéro de bulletin ainsi que votre question selon l'une des façons suivantes

Courriel : Kenworth.Campaigns@paccar.com avec le numéro de bulletin en ligne objet

ou

Poste : Kenworth Truck Company, P.O. Box 1000, Kirkland, WA 98083-1000, à l'attention du département du service à la clientèle

ou

Téléphone : 425-828-5888

Si ce véhicule ne vous appartient plus, nous apprécierions que vous nous fassiez part du nom du nouveau propriétaire, si vous le connaissez.

Merci,

Annick Hollingsworth
Directrice des plateformes de service
Kenworth Truck Company

NIV : [Liste de NIV's]



A **PACCAR** COMPANY

Kenworth Truck Company
Customer Service Department
PO Box 1000
Kirkland, Washington 98083-1000
(425) 828-5888

Date TBD

[First VIN]
Customer Name
Address
City, State Zip

Scan this QR code to open
the Kenworth Dealer Locator.



Subject: PSB T012: PACCAR TX-12 Main Drive Gear Premature Wear

Dear Kenworth Customer,

Your vehicle (listed within this letter), equipped with a PACCAR TX-12 transmission, is eligible for a campaign to replace the clutch housing front cover with an improved part. Replacing the front cover will increase the longevity of the transmission main drive gear.

<i>The improvement is...</i>	Clutch housing front cover
<i>What your dealer will do...</i>	Dealers will install the improved clutch housing front cover
<i>What you must do ...</i>	Contact your Kenworth Dealer to schedule an appointment for repair

Please contact a Kenworth dealership to schedule an appointment for this work. If you have already had this work performed, please disregard this letter. You can find your nearest Kenworth dealer at Dealer Locator on the website www.Kenworth.com.

When contacting your selected Kenworth dealer, refer to campaign PSB **T012** and the VIN listed on this letter. The work will take approximately **12.0 hour/s**, depending on vehicle configuration and dealer scheduling. There will be no charge to you if completed by **12/01/2022**. We apologize for this inconvenience but ask for your cooperation to ensure your continued satisfaction with Kenworth products.

If you had this repair performed before you received this letter, you may be eligible to receive reimbursement for the cost of obtaining a pre-notification remedy of the problem associated with this campaign. Please contact your Kenworth dealer for more information.

If you require further information about this campaign or experience any difficulty in making arrangements for this repair, please contact Kenworth Customer Service, provide your name, your dealer's city and state, your phone number, your email address (optional), the last 8 digits of your VIN, the bulletin number, and your question using one of the following:

Email: Kenworth.Campaigns@paccar.com with the bulletin number in the subject line

or

Mail: Kenworth Truck Company, P.O. Box 1000, Kirkland, WA 98083-1000, Attn: Customer Service Department

or

Phone: 425-828-5888

If you no longer own this vehicle, we would appreciate your advising us of the new owner if you know their name.

Thank you,

Annick Hollingsworth
Director of Service Platforms
Kenworth Truck Company

VIN: [VIN List]