

22KWE: Sheppard Steering Gear Incorrectly Assembled

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Number

22KWE / 22V547 / 2022-410

Supplier

R. H. Sheppard Co., Inc.

Description

22KWE: Sheppard Steering Gear Incorrectly Assembled

Date

8/2/2022

What's New

2026-03-02: The Parts section has been updated with revised steps for opening a TCS365 Order Support – Order Inquiry case .

!!! ALWAYS USE LATEST VERSION !!! - Due to the fluid nature of this situation, this bulletin will be updated frequently.

Safety Recall – Claim filing part number has been clarified - A dealer handling fee has been authorized. This **Phase 3** release is for inspection, ordering replacement steering gears, and replacement of the steering gear. Repair procedures have been added. However, repair parts may have long lead times due to supply chain issues. **Certain steering gears may have been assembled incorrectly, causing the gear to fracture. This can cause a loss of steering control, increasing the risk of a crash. Steering gear serial numbers must be inspected to determine suspect gears.** Customer letters are now attached.

Introduction

Kenworth Truck Company has determined that a defect, which relates to motor vehicle safety, exists in certain Model Year 2022-2023 T170, T270, T280, T370, T380, T440, T470, T480, T680, T680 NextGen, T800, T880, W900, W990, and C500 chassis built from 06/01/2021 through 06/16/2022. The steering gear may have been incorrectly assembled, which could cause the steering gear to fracture, resulting in loss of steering control and increased risk of a collision.

Some steering gears were assembled with fewer than the required number of recirculating balls which can lead to a fracture in the steering gear worm shaft and loss of vehicle steering.

Steering gears with fewer than the required number of recirculating balls may bind when loads are applied. In some cases, the balls may align on the same side of the gear's worm shaft and concentrated

loads may cause the gear's internal parts to fracture resulting in loss of vehicle steering. Loss of steering increases the likelihood of a crash.

No audible or visual warning is available.

Situation

26,677 (25,087 US and 1,590 CAN) Model Year 2022-2023 T170, T270, T280, T370, T380, T440, T470, T480, T680, T680 NextGen, T800, T880, W900, W990, and C500 chassis built from 06/01/2021 through 06/16/2022 may contain suspect steering gears.

Refer to the attached chassis list to identify which vehicles require inspection to determine if they contain a suspect steering gear.

Resolution

Safety Recall

- Phase 1: Inspection and data collection only. (Released 08/18/22)
- Phase 2: Inspection/Data collection and ordering replacement steering gears. (Released 08/26/22)
- **Phase 3: Inspection/Data Collection, ordering replacement steering gears, and replacement of steering gear. (Released 09/12/22)**

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



NOTE

Only primary (master) steering gears are affected by this recall. Secondary (slave) gears do not need to be inspected.

Any dates cast into steering gears can be ignored. This recall uses only the serial number for the determination of suspect gears.

Replacement steering gears may have a long lead time due to supplier capacity. Use the procedures in the Parts section to place an order and confirm the lead time. Coordinate the repair scheduling with the

customer.



NOTE

Advise vehicle owner of inspection results and obtain direction regarding the release of the truck pending notification of parts availability. **Vehicle owner** to determine the use of truck while waiting for parts.



LEGAL DISCLOSURE

DISCLOSURE STATEMENT:
Steering gears may be replaced with remanufactured gears from R.H. Sheppard. These remanufactured parts have the same warranty as new from the manufacturer. **New vehicles can only be sold with remanufactured parts with full disclosure to the customer before final purchase.**

The following will be on a separate [Disclosure Form](#) to be provided to the customer:

“This vehicle was involved in a safety recall and was repaired prior to sale to the first purchaser with a steering gear remanufactured by R.H. Sheppard. This remanufactured gear comes with the standard factory warranty. Refer to the Warranty Agreement for details.”

**CAUTION**

Dealers could be held liable for violations of Consumer Protection Laws if the presence of remanufactured parts on new vehicles is not clearly and conspicuously disclosed to the customer at the time of sale.

- This [Disclosure Form](#) MUST be given to the purchaser of NEW vehicles repaired before purchase.
- Attach a copy of the Disclosure Form to the warranty claim for repair.

1. Review the attached chassis list for your dealer code and schedule your customer(s) for inspection if their chassis is on the list.
2. Review SIR for Campaign Codes 22KWE or E22KW prior to performing this repair. See below for service actions.
3. Inspect steering gear serial numbers using the attached [Inspection Procedure](#).
4. Confirm with the customer that your dealership will be the repairing location before ordering parts.
 - Customers may coordinate repairs at a different dealer than the one that performed the inspection.
5. Prepare an inventory of required consumable parts from ECAT and **confirm all parts have arrived**

before scheduling the chassis for repair. See attached procedures for details.

6. Follow the steps in the Parts section to request replacement steering gears for affected vehicles.

SIR Campaign Codes and Service Actions

22KWE	E22KW	Vehicle Status	Action Required
OPEN	Not Visible	Not Inspected	Inspect (Follow 22KWE Procedures)
OPEN	COMPLETE	Inspection Completed - SUSPECT	DO NOT REINSPECT - Waiting for parts
COMPLETE	Not Visible	Inspection Completed - GOOD or Out of Date Range	NONE - Release Vehicle - Recall is complete
COMPLETE	COMPLETE	Recall Complete - Gear has been replaced	NONE - Release Vehicle - Recall is Complete

Federal Law

It is a violation of Federal law for a dealer to sell or lease new vehicles covered by this recall until the defect or noncompliance has been corrected.

Warranty

Starting on **08/02/2022**, Kenworth will pay for parts at dealer net plus applicable mark-up and labor:

- **0.3 hours** to complete the following:
 - Inspect Steering Gear Serial Numbers using the attached [Inspection Procedure](#)
 - Check the steering gear serial number using the Sheppard Steering Gear Classification Tool.
 - Enter Classification Results and steering gear serial number into the [Serial Number Tracking](#)

[Form.](#)

- Touch-up paint on "GOOD" or "Out of Date Range" steering gears if necessary.
- Recommended repairs apply to inspection only.



NOTE

Failure to complete the Serial Number Tracking Form for each chassis inspected could result in the recommended repair being charged back to the dealer.

- For serial numbers that return "GOOD" or "Out of Date Range" file under Recommended Repair Code **22KWEA**. Includes time for touch-up paint of exposed serial numbers on "GOOD" or "Out of Date Range" steering gears if necessary. No further action is required on "GOOD" or "Out of Date Range" steering gears.
- File a long form claim for touch-up paint as necessary.
- For serial numbers that return "SUSPECT" file under Recommended Repair Code **22KWEB**. This will result in E22KW appearing and showing "Complete" in SIR. The 22KWE Recall will stay open until repairs are completed.
- Inspection claims will only be paid once per chassis. Subsequent claims will be accepted for repairs only.
- **2.0 hours** to complete the following per bulletin procedures:
 - Look up and order consumable parts from ECAT for each chassis to be repaired
 - Replace the steering gear
 - Set the relief plungers
 - Bleed the power steering system
 - Touch-up paint exposed mounting hardware
- **0.5 hours** to check alignment.
- **0.2 hours** to calibrate the steering angle sensor using Bendix ACOM Pro. (if equipped)
 - Once the new steering gear is installed, file a 22KWE Recommended Repair. Edit the claim to include parts used. See parts section for authorized additional parts.
 - The repair claim MUST be submitted with the part number ordered by PACCAR Parts through the TCS365 case. This part number will end in "-Y" Repair claims filed with incorrect

part numbers will be denied.

- **Add a non-PACCAR part line item for \$19 and list the part number as miscellaneous (this is for a handling fee).**
- New vehicles that are repaired before purchase **MUST** be given a disclosure form. Attach a copy of the disclosure form to the repair claim.
- File an additional claim for extraordinary circumstances. A recommended repair for standard labor must be filed first. Recommended repair CU number must be included in repair story of additional claim.
- Return suspect steering gears to R.H. Sheppard
 - Contact PNG Logistics at 877-764-9441 for shipping instructions
 - Ship the suspect gear to:

Sheppard Recall

ATTN: {use steering gear serial number}

300 N. Forney Ave.

Hanover, PA 17331
- Place a copy of the claim with the returned gear.
- **Canadian Dealers:** If Necessary, use the supplier's **Tax ID 66-0428542**
- File an additional claim for extraordinary circumstances. A recommended repair for standard labor must be filed first.
- File the claim within 14 days in accordance with the Warranty Policy.

PRWS CLAIM CODING			
Campaign Code:	22KWE	Campaign Type	Safety Recall
Claim Category:	Truck	Repair Type	Proactive
Customer Concern Code	128	Causal Code	62
Corrective Action Code	06	Responsibility Code:	CampSupp

Failure Location	015-003-061	Causal Part	Refer to ECAT for chassis-specific part numbers
Supplier Code	15310AA	SRT Code	B15-010 0.3 hrs Sheppard Steering Gear inspection per bulletin procedure B15-011 2.0 hrs Sheppard steering gear R&R per bulletin procedure B11-002 0.5 hrs Steering Alignment per bulletin procedure B13-224 0.2 hrs Calibrate steering angle sensor using Bendix ACOM, per bulletin procedure

Procedure



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, or property damage.

Affected Chassis must be inspected to determine steering gear serial number using the attached [Inspection Procedure](#).

Fill in the chassis and steering gear information on the [Serial Number Tracking Form](#).



NOTE

Only primary (master) steering gears are affected by this recall. Secondary (slave) gears do not need to be inspected.

Follow the [Replacement Procedures](#) for steering gear replacement. Refer to [Sheppard documentation](#) for installation, bleeding, and setting plungers.

Please do not print the procedure document. Hyperlinks in the procedures connect to online documents that MUST be followed.

For T170, T270, T370, and T440/470 refer to specific [bleed procedures](#).

Parts

Follow the steps below to request replacement steering gears and additional parts for affected vehicles.

Touch-up paint – used for touch-up of “GOOD” and “Out of Date Range” steering gears after inspection.

Use long-form claim for paint materials on “GOOD” and “Out of Date Range” steering gears.

**Touch-up paint for GOOD and
Out of Date Range steering
gears**

Quantity	Part Number	Description
As needed	Locally Sourced	Spray Paint (Black or matching chassis Color)

The following parts are authorized for steering gear replacement. Specific part numbers and quantities are available in ECAT for each chassis. Include specific part numbers and quantities in long form claim for steering gear replacement. Refer to the [Replacement Procedures](#) for parts that must be replaced.

Add a non-PACCAR part line item for \$19 and list the part number as miscellaneous (this is for a handling fee).

Steering Gear orders will be processed by PPD through TCS365 using the procedures below.

All other necessary replacement parts (authorized parts) must be ordered separately using standard

ordering procedures.

Authorized Parts

Quantity	Part Number	Description
4-5	See ECAT and cross-reference below	Mounting Nut
4-5	See ECAT and Cross Reference below	Mounting Bolt (different lengths used)
1	HWC06510 (pack of 25)	Hex Bolt (steering shaft clamp)
1	HWC02294 (pack of 25)	Hex Bolt (steering shaft clamp)
1	J37-1005 (See ECAT if different)	Power Steering Filter – 2qt Reservoir, spin-on filter
2-4	22617-12WHD (pack of 10) or Locally Sourced	O-rings for hydraulic fittings (majority are ¾" Viton O-rings)
1 or 2	W65-1009-038 or Locally Sourced	Cotter Pin (drag link) – 2 required on dual steering gear vehicles
1	16700033 (Oetiker)	Tube clamp (Hydraulic Return)

Quantity	Part Number	Description
	(pack of 5) or M16-1043-012 (Worm Drive) or Locally Sourced	
1-2 gal	221854-483C (Canada) 226502-721 (US) or Locally Sourced	Power Steering Fluid (drain/fill)
1	See ECAT for individual retainer PN)	Pitman arm retainer and lock washer (if damaged)
As needed	Locally Sourced	Anti-seize for pitman arm retainer
As needed	Locally Sourced	Cable ties for T170, T270, T370, and T440/470 hoses
As needed	Locally Sourced	Paint – for touch-up of exposed hardware after installation of steering gear or custom

Quantity	Part Number	Description
		color matching

Mounting Hardware for KW chassis:

1. Compare the Steering Gear BOM mounting hardware PN in ECAT with the "Old Fastener PN" shown in the table below.
 - If the ECAT PN IS on the table, order the "New Fastener PN".
Why? Fasteners listed in the cross-reference table are Tension Control (TC) type that cannot be installed by a dealer.
 - If the ECAT PN IS NOT on the table, order the fastener PN shown in ECAT.

2. Replace all mounting hardware with new.

Mounting Hardware Cross-Reference

Old Fastener PN	Old Fastener Description	New Fastener PN	New Fastener Description
W34-1047-080MG	Bolt, TC, M16 x 80	W34-1160-080	BOLT-FINISHED HEX, 80
W34-1047-090MG	Bolt, TC, M16 x 90	W34-1160-090	BOLT-FINISHED HEX, 90
W34-1047-100MG	Bolt, TC, M16 x 100	W34-1160-100	BOLT-FINISHED HEX, 100
W34-1047-110MG	Bolt, TC, M16 x 110	W34-1160-110	BOLT-FINISHED HEX, 110
W34-1047-120MG	Bolt, TC, M16 x 120	W34-1160-120	BOLT-FINISHED HEX, 120
W34-1047-130MG	Bolt, TC, M16 x 130	W34-1160-130	BOLT-FINISHED HEX, 130
W34-1047-140MG	Bolt, TC, M16 x 140	W34-1160-140	BOLT-FINISHED HEX, 140
W34-1047-150MG	Bolt, TC, M16 x 150	W34-1160-150	BOLT-FINISHED HEX, 150
W34-1047-190MG	Bolt, TC, M16 x 190	W34-1160-190	BOLT-FINISHED HEX, 190
W34-1047-210MG	Bolt, TC, M16 x 210	W34-1160-210	BOLT-FINISHED HEX, 210
W34-1145-16B	Nut, TC, Metric	W20-1028-016	Nut, Hex, Locking

After verifying via Sheppard Steering Gear Classification Tool that you have a suspect part, open a

TCS365 Technical Assistance case for further approval.



NOTE

TCS365 cases MUST be opened EXACTLY as shown below. Any missing or incorrect information will result in parts orders being delayed or canceled.

1. Open [TCS365](#) in Google Chrome or Microsoft Edge.
2. Select **Vehicle Support - Technical Assistance**.
3. Case Type: **Chassis Support**
4. Case Category: **General Questions**.
5. Subject: **22KWE**
6. Area of Concern: **Steering**
 - If you have not already done so: Check the steering gear serial number using the Sheppard Steering Gear Classification Tool.
7. In the Details section, include:
 - Steering Gear Serial Number
 - Sheppard Steering Gear Classification Tool results
 - Part number shown on Sheppard Classification Tool results
8. Submit the case.

Technical Assistance will review your case details and respond with whether you are approved to order parts or denied.

If denied, unit may be released to the customer with no further repair necessary. No further action from the dealer is needed.

If approved by Technical Assistance to order parts, open a separate TCS365 case to place an order.



NOTE

**!!DO NOT PROCEED PAST
THIS POINT UNTIL
NOTIFIED VIA TCS365!!**

***Dealers are not placing orders for replacement steering gears themselves - orders will be placed**

by Paccar Parts Customer Service, via TCS365 cases only.

Authorized replacement parts must be ordered separately using normal ordering procedures.

***It is required to include the Technical Assistance case # in the Place an Order case.**

1. Open [TCS365](#) in Google Chrome or Microsoft Edge.
2. Select **Order Support – Order Inquiry**.
3. Type: **Place an Order**
4. Case Category: **Campaign**
5. Enter the following in the Subject line:
 - Campaign Number: **22KWE**
 - The Technical Assistance case # that has the approval from Technical Assistance – **Your order will be placed with this information.**
 - Example: 22KWE case 05112345
6. Click the **RH Sheppard Recall** drop down menu and select **Yes**. This will ensure your case gets sent to the correct department.
7. In the **Campaign Name** field, input the recall number **22KWE**.
8. Other required fields when opening a Place an Order case:
 - Vehicle Chassis # - **Your order will be placed with this information.**
 - Shipping method: Best Way Ground (BWG)
 - Part #
 - Dealer PO #
 - Order Type: Emergency – EM (US) or E1 (Canada)
 - No drop ship orders accepted. All parts will ship directly to the dealer location that opened the case.
9. Submit the case

Once a Place an Order case has been submitted, PPD Customer Service will review the details and place the order on behalf of the dealer.

Once the order is placed, the dealer will receive an email confirmation with the order # and the parts that have been ordered.

Shipping and tracking information can be found in Quicknet.

Links

[Chassis List](#)

[Inspection Procedure - Revision D 12/12/25](#)

[Sheppard Steering Gear Classification Tool](#)

[Serial Number Tracking Form](#)

[Replacement Procedures Rev B 09/13/22](#)

[Disclosure Form](#)

[US Customer Letter](#)

[Canada Customer Letter](#)

Authored by: JB3

Revision History

03/02/2026: The Parts section has been updated with revised steps for opening a TCS365 Order Support – Order Inquiry case.

12/12/2025: The Inspection Procedure has been updated to include the new email and phone number for assistance.

12/11/2023: Claim filing part number clarified

01/17/2023: Dealer handling fee added to authorized parts list to cover automatically applied freight charges.

09/29/2022: Updated mounting hardware cross-reference table and clarified hardware replacement requirements.

09/20/2022: Links to customer letters added.

09/12/2022: Phase 3 – Repair procedures added. Inspection procedures updated to define “Out of Date Range”.

08/30/2022: Procedure document updated. Broken links removed and paint removal methods clarified.

08/26/2022: Phase 2 - Ordering process for replacement steering gears added.

08/22/2022: Procedures updated. Warranty Quick Claims explanation expanded.

08/18/2022: Interim Bulletin converted to Inspection and Data Collection Only.

22PBE: Sheppard Steering Gear Incorrectly Assembled

[Edit](#) [Clone](#)

Number

22PBE / 22V547 / 2022-410

Supplier

R. H. Sheppard Co., Inc.

Description

22PBE: Sheppard Steering Gear Incorrectly Assembled

Date

8/2/2022

What's New

2026-03-02: The Parts section has been updated with revised steps for opening a TCS365 Order Support - Order Inquiry case.

2023-11-17: Please ensure the correct part ordering procedure is being followed.

2022-09-12: !!! ALWAYS USE LATEST VERSION !!! - Due to the fluid nature of this situation, this bulletin will be updated frequently. - Updated .

Safety Recall – Certain steering gears may have been assembled incorrectly, causing the gear to fracture. This can cause a loss of steering control, increasing the risk of a crash. Steering gear serial numbers must be inspected to determine "Suspect" gears. This Phase 3 release is for inspection, ordering replacement steering gears, and replacement of the steering gear. Repair procedures have been added. However, repair parts may have long lead times due to supply chain issues.

Introduction

Peterbilt Motors has determined that a defect, which relates to motor vehicle safety, exists in certain Model Year 2022-2023 325, 330, 337, 348, 365, 367, 389, 520, 536, 537, 548, 567, 579, and New Model 579 chassis built from 06/01/2021 through 06/16/2022. The steering gear may have been incorrectly assembled, which could cause the steering gear to fracture, resulting in loss of steering control and increased risk of a crash.

Some steering gears were assembled with fewer than the required number of recirculating balls which can lead to a fracture in the steering gear worm shaft and loss of vehicle steering.

Steering gears with fewer than the required number of recirculating balls may bind when loads are applied. In some cases, the balls may align on the same side of the gear's worm shaft and concentrated loads may cause the gear's internal parts to fracture resulting in loss of vehicle steering. Loss of steering increases the likelihood of a crash. No audible or visual warning is available.

Situation

23,863 (22,514 US and 1,349 CAN) Model Year 2022-2023 325, 330, 337, 348, 365, 367, 389, 520, 536, 537, 548, 567, 579, and New Model 579 chassis built from 06/16/2021 through 06/02/2022 with suspect

steering gears.

Refer to the attached chassis list to identify which vehicles require inspection to determine if they contain a suspect steering gear.

Resolution

Safety Recall

- Phase 1: Inspection and data collection only (released 8/18/22)
- Phase 2: Inspection and Data collection and ordering replacement steering gears. (released 8/26/22)
- **Phase 3: Inspection/Data Collection, ordering replacement steering gears, and replacement of steering gear. (Released 09/12/22)**

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

- Review the attached chassis list for your dealer code and schedule your customer(s) for inspection if their chassis is on the list.
- Review SIR for Campaign Codes 22PBE or E22PB prior to performing this repair. See below for service actions.
- Inspect steering gear serial numbers using the [attached procedure](#). **ONCE YOU HAVE THE STEERING GEAR SERIAL NUMBER PLEASE FOLLOW THE STEPS IN THE WARRANTY SECTION BELOW.**
- Confirm with the customer that your dealership will be the repairing location before ordering parts.
 - Customers may coordinate repairs at a different dealer than the one that performed the inspection.
- Prepare an inventory of required consumable parts from ECAT and **confirm all parts have arrived**

before scheduling the chassis for repair. See attached procedures for details.

- Follow steps in Parts section to request replacement steering gears for affected vehicles.

SIR Campaign Codes and Service Actions

22PBE	E22PB	Vehicle Status	Action Required
OPEN	Not Visible	Not Inspected	Inspect (Follow 22PBE Procedures)
OPEN	COMPLETE	Inspection Completed - SUSPECT	DO NOT REINSPECT - Waiting for parts
COMPLETE	Not Visible	Inspection Completed - GOOD	NONE - Release Vehicle - Recall is complete
COMPLETE	COMPLETE	Recall Complete - Gear has been replaced	NONE - Release Vehicle - Recall is Complete



NOTE

Only primary (master) steering gears are affected by this recall. Secondary (slave) gears do not need to be inspected.

Any dates cast into steering gears can be ignored. This recall uses only the serial number for determination of suspect gears.

Replacement steering gears may have a long lead time due to supplier capacity. Use the procedures in the Parts section to place an order and confirm the lead time. Coordinate the repair scheduling with the

customer.



NOTE

Advise vehicle owner of inspection results and obtain direction regarding release of truck pending notification of parts availability. **Vehicle owner** to determine use of truck while waiting for parts.



LEGAL DISCLOSURE

DISCLOSURE STATEMENT:
Steering gears may be replaced with remanufactured gears from R.H. Sheppard. These remanufactured parts have the same warranty as new from the manufacturer. **New vehicles can only be sold with remanufactured parts with full disclosure to the customer before final purchase.**

The following will be on a separate [Disclosure Form](#) to be provided to the customer:

“This vehicle was involved in a safety recall and was repaired prior to sale to the first purchaser with a steering gear remanufactured by R.H. Sheppard. This remanufactured gear comes with the standard factory warranty. Refer to the Warranty Agreement for details.”



CAUTION

Dealers could be held liable for violations of Consumer Protection Laws if the presence of remanufactured parts on new vehicles is not clearly and conspicuously disclosed to the customer at the time of sale.

- This [Disclosure Form](#) MUST be given to the purchaser of NEW vehicles repaired before purchase.
- Attach a copy of the Disclosure Form to the warranty claim for repair.

Federal Law

It is a violation of Federal law for a dealer to sell or lease new vehicles covered by this recall until the defect or noncompliance has been corrected.

Warranty

Starting on **08/02/2022**, Peterbilt will pay for parts at dealer net plus applicable mark-up and labor:

- **0.3 hours** to complete the following:
 - Inspect Steering Gear Serial Numbers
 - Check the steering gear serial number using the Sheppard Steering Gear Classification Tool.
 - Enter both "Good", "Suspect", (or "Out of Date Range") steering gear serial numbers into the [Serial Number Tracking Form](#).
 - Touch-up paint on "Good" or "Out of Date Range" steering gears if necessary.
- Recommended repairs apply to inspection only



NOTE

Failure to complete the Serial Number Tracking Form for each chassis inspected could result in the recommended repair being charged back to the dealer.

- For serial numbers that return "Good" or "Out of Date Range" file under Recommended Repair Code **22PBEA**. Includes time for touch-up paint of exposed serial numbers on "Good" or "Out of

Date Range" steering gears if necessary. No further action is required on "Good" steering gears.

- File a long form claim for touch-up paint as necessary.
- For serial numbers that return "Suspect" file under Recommended Repair Code **22PBEB**. This will result in E22PB appearing and showing "Complete" in SIR. The 22PBE Recall will stay open until

repairs are completed.

- Inspection claims will only be paid once per chassis. Subsequent claims will be accepted for repairs only.
- **2.0 hours** to complete the following per bulletin procedures:
 - Look up and order consumable parts from ECAT for each chassis to be repaired
 - Replace the steering gear
 - Set the relief plungers
 - Bleed the power steering system
 - Touch-up paint exposed mounting hardware
- **0.5 hours** to check alignment.
- **0.2 hours** to calibrate the steering angle sensor using Bendix ACOM Pro. (if equipped)
 - File a long form claim to include parts replaced during installation. See parts section for authorized additional parts.
 - New vehicles that are repaired before purchase **MUST** be given a disclosure form. Attach a copy of the disclosure form to the repair claim.
 - File an additional claim for extraordinary circumstances. A recommended repair for standard labor must be filed first. Recommended repair CU number must be included in repair story of additional claim.
 - Return suspect steering gears to R.H. Sheppard
 - Contact PNG Logistics at 877-764-9441 for shipping instructions
 - Ship the suspect gear to:

Sheppard Recall

ATTN: {use steering gear serial number}

300 N. Forney Ave.

Hanover, PA 17331
- Place a copy of the claim with the returned gear.
- **Canadian Dealers:** If Necessary, use the supplier's **Tax ID 66-0428542**
- File an additional claim for extraordinary circumstances. A recommended repair for standard labor must be filed first.

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

PRWS CLAIM CODING			
Campaign Code:	22PBE	Campaign Type	Safety Recall
Claim Category:	Truck	Repair Type	Proactive
Customer Concern Code	128	Causal Code	62
Corrective Action Code	06	Responsibility Code:	CampSupp
Failure Location	015-003-061	Causal Part	Refer to ECAT for chassis-specific part numbers
Supplier Code	15310AA	SRT Code	B15-010 0.3 hrs Inspect Steering Gear Serial Number per bulletin procedures B15-011 2.0 hrs Look up parts in ECAT, Replace the steering gear, set plungers,

			bleed steering system B11-002 0.5 hrs Steering Alignment per bulletin procedures B13-224 0.2 hrs Calibrate steering angle sensor using Bendix ACOM, per bulletin procedure
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Procedure


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, or property damage.

Affected Chassis must be inspected to determine steering gear serial number using the attached

[attached procedure](#)



NOTE

Only primary (master) steering gears are affected by this recall. Secondary (slave) gears do not need to be inspected.

Follow the [Replacement Procedures](#) for steering gear replacement. Refer to [Sheppard documentation](#) for installation, bleeding, and setting plungers.

Please do not print the procedure document. Hyperlinks in the procedures connect to online documents that MUST be followed.

Parts

Follow the steps below to request replacement steering gears for affected vehicles.

Touch-up paint – used for touch-up of “Good” and “Out of Date Range” steering gears after inspection. Use long form claim for paint materials on “Good” and “Out of Date Range” steering gears.

Touch-up paint for GOOD steering gears

Quantity	Part Number	Description
As needed for touch up of exposed serial numbers	Locally Sourced	Spray Paint (Black or Matching Chassis Color)

The following parts are authorized for steering gear replacement. Specific part numbers and quantity are available in ECAT for each chassis. Include specific part numbers and quantities in long form claim for

steering gear replacement. Refer to the [Replacement Procedures](#) for parts that must be replaced.

Authorized Parts

Quantity	Part Number	Description
4-5	See ECAT	Mounting Nut
4-5	See ECAT	Mounting Bolt (different lengths used)
1	HWC06510 (pack of 25)	Hex Bolt (steering shaft clamp)
1	HWC02294 (pack of 25)	Hex Bolt (steering shaft clamp)
1	J37-1005 (See ECAT if different)	Power Steering Filter – 2qt Reservoir, spin-on filter
2-4	22617-12WHD (pack of 10) or Locally Sourced	O-rings for hydraulic fittings (majority are ¾" Viton O-rings)
1 or 2	W65-1009-038 or Locally Sourced	Cotter Pin (drag link) – 2 required on dual steering gear vehicles
1	16700033 (Oetiker) (pack of 5) or M16-1043-	Tube clamp (Hydraulic Return)

Quantity	Part Number	Description
	012 (Worm Drive) or Locally Sourced	
1-2 gal	221854-483C (Canada) 226502-721 (US) or Locally Sourced	Power Steering Fluid (drain/fill)
1	See ECAT for individual retainer PN)	Pitman arm retainer and lock washer (if damaged)
As needed	Locally Sourced	Anti-seize for pitman arm retainer
As needed	Locally Sourced	Cable ties as needed for hoses
As needed	Locally Sourced	Paint – for touch up of exposed hardware after installation of steering gear or custom color matching

After verifying via Sheppard Steering Gear Classification Tool that you have a suspect part, open a

TCS365 Technical Assistance case for further approval.

 **NOTE**

TCS365 cases MUST be opened EXACTLY as shown below.

Any missing or incorrect entry may result in the wrong steering gear part number ordered and claim being denied.

1. Open [TCS365](#) in Google Chrome or Microsoft Edge.
2. Select **Vehicle Support - Technical Assistance**.
3. Case Type: **Chassis Support**
4. Case Category: **General Questions**.
5. Subject: **22PBE**
6. Area of Concern: **Steering**

If you have not already done so: Check the steering gear serial number using the Sheppard Steering Gear Classification Tool.

7. In the Details section, include:
 - Steering Gear Serial Number
 - Sheppard Steering Gear Classification Tool results
 - Part number shown on Sheppard Classification Tool results
8. Submit the case.

Technical Assistance will review your case details and respond with whether you are approved to order parts or denied.

If denied, unit may be released to the customer with no further repair necessary. No further action from the dealer is needed.

If approved by Technical Assistance to order parts, open a separate TCS365 case to place an order.

 **NOTE**

!!DO NOT PROCEED PAST THIS POINT UNTIL NOTIFIED VIA TCS365!!

***Dealers are not placing orders for parts themselves - orders will be placed by PACCAR Parts**

Customer Service, via TCS365 cases only. The part number ordered by TCS will end in 'Y'.

Do NOT order new or reman steering gear part number.

***It is required to include the Technical Assistance case # in the Place an Order case.**

1. Open [TCS365](#) in Google Chrome or Microsoft Edge.
2. Select **Order Support – Order Inquiry**.
3. Type: **Place an Order**
4. Case Category: **Campaign**
5. Enter the following in the Subject line:
 - Campaign number: **22PBE**
 - The Technical Assistance case # that has the approval from Technical Assistance – **Your order will be placed with this information.**
 - Example: 22PBE case 05112345
6. Click the **RH Sheppard Recall** drop down menu and select **Yes**. This will ensure your case gets sent to the correct department.
7. In the **Campaign Name** field, input the recall number **22PBE**.
8. Other required fields when opening a Place an Order case:
 - Vehicle Chassis # - **Your order will be placed with this information.**
 - Shipping method: Best Way Ground (BWG)
 - Part #
 - Dealer PO #
 - Order Type: Emergency – EM (US) or E1 (Canada)
 - No drop ship orders accepted. All parts will ship directly to the dealer location that opened the case.
9. Submit the case

Once a Place an Order case has been submitted, PPD Customer Service will review the details and place the order on behalf of the dealer.

Once the order is placed, the dealer will receive an email confirmation with the order # and the parts that have been ordered.

Shipping and tracking information can be found in Quicknet.

Links

[22PBE Chassis List](#)

[Inspection Procedure - Revision D 12/12/25](#)

[Sheppard Steering Gear Classification Tool](#)

[PB Serial Number Tracking Form](#)

[Replacement Procedures Rev B 09/12/22](#)

[Disclosure Form](#)

[US Customer Letter](#)

Authored by D. Cook

Revision History

03/02/2026: The Parts section has been updated with revised steps for opening a TCS365 Order Support – Order Inquiry case.

12/12/2025: The Inspection Procedure has been updated to include the new email and phone number for assistance.

09/12/2022: Phase 3 – Repair procedures added. Inspection procedures updated to define “Out of Date Range”.

08/30/2022: Procedure document updated. Broken links were removed and paint removal methods were clarified.

08/26/2022: Phase 2 - Ordering process for replacement steering gears added.

08/22/2022: Procedures updated to remove the picture & marking requirement and shortened Serial Number Tracking Form. Warranty Quick Claims explanation expanded.

08/18/2022: Phase 1 - Interim Bulletin converted to Inspection and Data Collection Only.