TRW Automotive
Commercial Steering Systems

Service Procedure # COL-194

IGEN 3 Intermediate Shaft Weld Location Inspection Procedure

July 2009

This TRW Commercial Steering Systems' service procedure has been written to help you repair commercial vehicles more efficiently. This procedure should not replace your manuals; you should use them together. These materials are intended for use by properly trained, professional mechanics, NOT "Do-it-yourselfers". You should not try to diagnose or repair steering problems unless you have been trained, and have the right equipment, tools and know-how to perform the work correctly and safely.

NOTE Park the vehicle on a level surface. Shut down the engine, set the parking brake, and chock the tires before beginning procedure. Take any additional personal safety measures that may be required while performing this procedure.

NOTE This service procedure applies to TRW IGEN 3 Intermediate Columns

Tools Required

- Weld Position Gauge (IF-35029 DET.3 REV.D) for all intermediate column part numbers listed in the "Identifying Columns to Be Inspected" section, below.
- Weld Position Gauge (IF-35029 DET.5) for intermediate column part number 418035 ONLY.

Definition of Procedure

This procedure is designed for inspecting the joining weld of the IGEN 3 Intermediate Column to ensure that the weld position is to the correct specification.

Identifying Columns to Be Inspected

The intermediate columns to be inspected are numbered in one of the following ways.
- Indicates Numeral
X - Indicates Alpha Character
4180##
4180##-#
4180##-#X
4180##-##
4180##-##X

All are followed by a space and then a date code. The intermediate columns to be inspected fall between the following date codes

9111 - 9146

First digit indicates the year and the last three digits indicate the day of that year. **Figure 1**

NOTE If the Intermediate column is stamped with a second date code that starting with P (P###) it is not included as part of this procedure.

If the intermediate column on the vehicle looks like the intermediate column displayed in **Figure 2** it is **NOT** an IGEN 3 intermediate column and **DOES NOT** require inspection. Record the part number and vehicle vin number to verify that the part was not covered in this service procedure.

I GEN 3

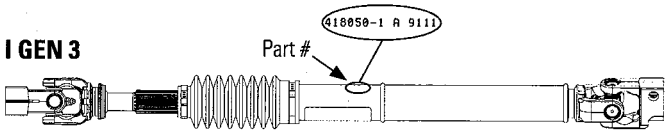

Figure 1

SF

Figure 2

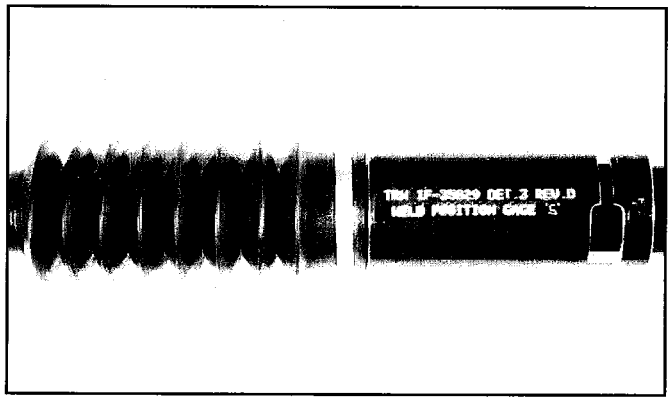

Figure 3

Inspection Procedure

1. Check the weld using the TRW weld position gauge (IF-35029 DET.3 REV-D). Place the template end of the gauge against the base of the seal boot as shown **Figure 3** with the gauge placed over the top of the part number stamp location.

NOTE Clean the base of the boot clearing any debris to ensure that the gauge makes good radial contact with the boot.

NOTE Clean the weld so that it is free of any dirt, oil or debris so it may be clearly inspected through the gauge window.

2. Visually inspect the position of the weld bead in reference to the small gauge window (3/16" width). The full circumference of weld seam must be inspected in the gauge window. **Figure 4**
   Look for the following criteria:
   - The weld bead must completely fill the gauge window.
   - No joint line between the 2 tubes should be visible, the edges where the tubes join should be covered by the weld.
   - The parent tube should not be visible in the narrow section of the gauge window.

NOTE The larger window in the gauge is for visual reference only and is not intended for gauging purposes.

2a. **Part Passes** if the weld bead completely fills the narrow gauge window **Figure 4.** Mark the parts that pass inspection with yellow or white paint mark adjacent to the part number stamp. **Figure 1**

- This completes the inspection
Submit a warranty claim for inspection only including:
- Vehicle Identification Number (VIN)
- Intermediate column part number and date code

If the part did not pass proceed to step 2b.

2b. **Part Fails** if any of the following are seen in the inspection. **Figure 5**
- The weld bead does not completely fill the narrow gauge window.
- The parent tube is partially visible in narrow gauge window.
- The joint line between the 2 tubes is visible at any point around the circumference of the shaft. **Figure 5**

If part did not pass
Remove intermediate shaft and replace.
- Submit warranty claim for inspection and part replacement including:
  - Vehicle Identification Number (VIN)
  - Intermediate column part number and date code

3. **All failed parts must be returned** through normal warranty procedures.

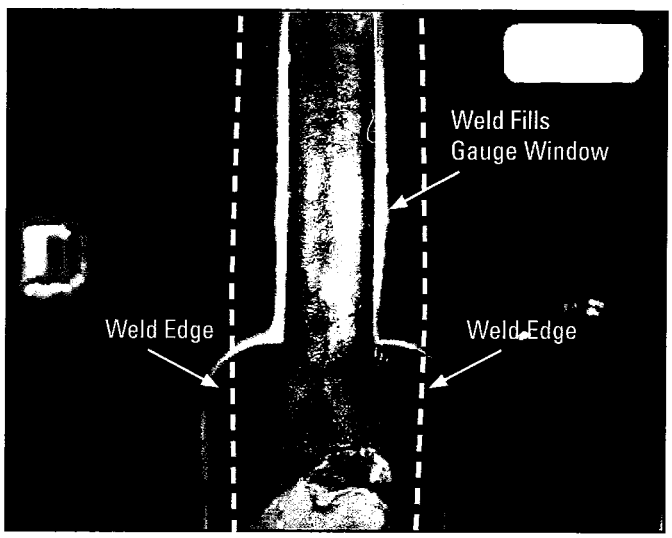

Figure 4

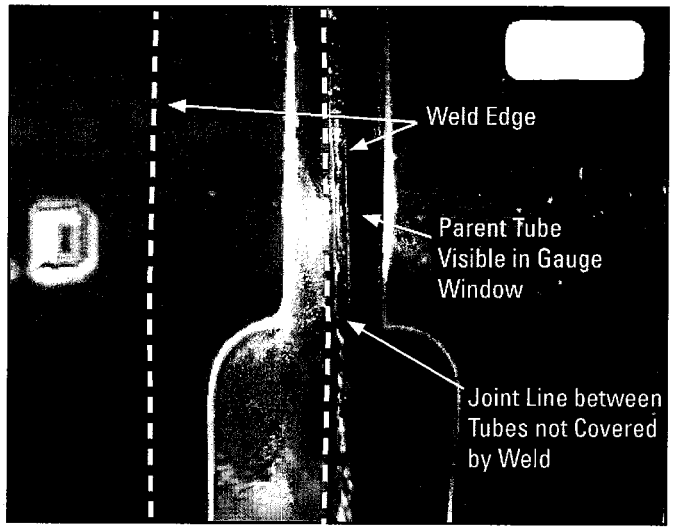

Figure 5

TRW Commercial Steering Systems
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A PACCAR COMPANY

Version: **Status:** **Publication Start Date** :

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609-C

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Supplier

TRW Automotive

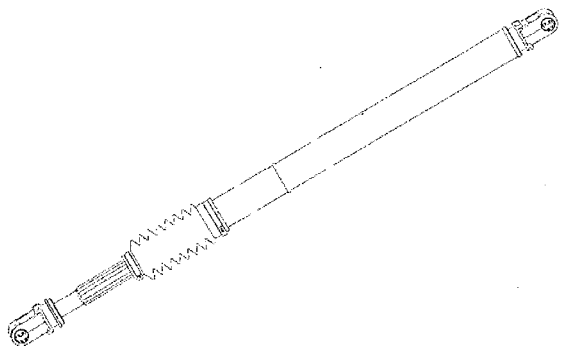
Description

TRW Steering I Shaft Weld

Introduction

TRW Automotive U.S. LLC notified Peterbilt Motors of a defect that relates to motor vehicle safety exists in certain IGEN3 intermediate steering columns. This defect affects Peterbilt Motors vehicles built between April 21, 2009 and June 12, 2009.

Situation



The weld around the IGEN3 steering shaft tube that secures the spline tube to the intermediate tube may be mislocated. (i.e., not fully over the seam created when the tubes are pressed together). Mislocated welds may result in torsional and axial strength thresholds of the shaft falling below acceptable levels.

This situation may impact the operator's ability to steer or control the vehicle and increase the risk of an accident.

Resolution

This recall will include an inspection of the steering shaft and, when necessary, replacing defective parts.

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

The DWC system will indicate chassis involved in this recall with the designator of "***609-C***" in the campaign field.

Please submit quick claim _____ for inspection only (no defect found).

Start a new claim (one per chassis) and reference the following information to complete the claim when a defect is identified.

For Field...	Enter...
Failure Location	015-003-005 Lower Column Shaft
Failure Type	705 Federal Recall
Claim Type	C
Campaign Number	609-C
Labor	Refer to guidelines in the 'Labor' section
PFPN	
CCC notes	[provide the tracking information for your part return]

Parts

Peterbilt will cover parts purchased through PACCAR Parts (dealer net+ 30% parts mark up) according to the schedule below.

PARTS		
Qty	Part Number	Description
1	418022-10 418022-11 418022-12 (Refer to ECAT to determine which part to order for the vehicle)	Shaft - Steering, Intermediate

Parts return **are** required.

Returned parts will go to:

Warranty Department

TRW Automotive

800 Heath St.

Lafayette, IN 47904

765-429-1768

Labor

Peterbilt will cover labor according to the schedule below.

Labor		
	0.3 hr	Inspection only
015-	0.6 hr	Inspect and replace steering driveshaft (Gear to Floor R & R)

Procedure

To inspect the steering shaft, the service technician will need to obtain the 'Weld Position Gage'. TRW will send these weld position guages directly to dealer service managers.

The inspection procedure is detailed in TRW's Service Procedure COL-194.

If you need a replacement inspection, please email tsd@trw.com and ask for kit part number **GK0001**.

Federal Recall Information

09KW8

Supplier

TRW Automotive

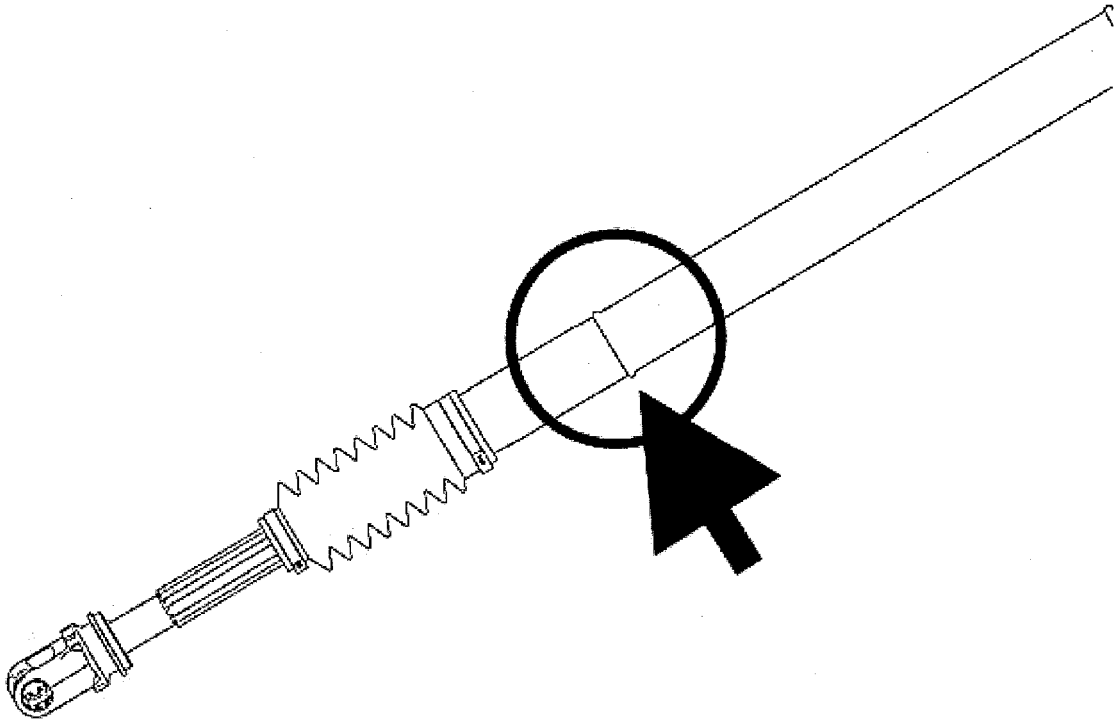
Description

Recall 09KW8 - TRW Steering Shaft Weld

Introduction

TRW Automotive notified Kenworth Truck Company of a defect that relates to motor vehicle safety that exists in certain IGEN3 intermediate steering columns. This defect affects Kenworth vehicles built at Kenworth's Chillicothe, Kenmex and Renton plants between April 21, 2009 and June 12, 2009. A total of 1,537 US and 181 Canadian trucks are involved in this recall. The chassis list (with TRW steering shaft part number) and a copy of the customer letter are attached. The DWC and SIR online systems indicate chassis involved in this recall with the designator of "09KW8".

Situation



The weld around the IGEN3 steering shaft tube that secures the spline tube to the intermediate tube may be mislocated. (i.e., not fully over the seam created when the tubes are pressed together). Mislocation of this weld may allow the splined tube and non-splined tube to rotate relative to one another during a low speed, high torque turn, vehicle maneuver, possibly resulting in loss of steering control and increasing the risk of an accident.

Resolution

This recall will include an inspection of the steering shaft using TRW Weld Position Gage # IF-35029 DET.3 REV-D (being supplied no-charge to all Kenworth dealers, attn: Service Manager, by TRW in their kit # GK0001) and, when necessary, replacing defective parts.

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

The DWC system will indicate chassis involved in this recall with the designator of "***09KW8***" in the campaign field.

Please submit Quick Claim 09KW8 for inspection only (no defect found). This claim will pay

0.3 hours.

When a defective weld is found using the Weld Position Gage, submit a Full Truck Claim for parts @ dealer net + normal warranty mark-up, plus SRT's 015-950 and 015-951 noted below. Please code claim as shown below.

Failure Location	015-003-005
Failure Type	445
Claim Type	C
Campaign Number	09KW8
Labor	Refer to Labor section below
Complaint/Cause/Correction	Include tracking info for your part return
Ship Location	TZ

Parts

Kenworth will cover parts purchased through PACCAR Parts (dealer net+ 30% parts mark up) according to the schedule below.

PARTS		
Qty	**Part Number**	**Description**
1 per chassis	418014 418015 418016 418033 418050-1 418050-2 418050-9 (Refer to ECAT to determine which part to order for the vehicle)	Shaft - Steering, Intermediate

Parts return **are** required.

Ship take-off parts to:

Warranty Department
TRW Automotive
800 Heath St.
Lafayette, IN 47904
765-429-1768

Labor

This recall will cover labor according to the schedule below.

Labor		
015-950	0.3 hr	Inspection only
015-951	0.6 hr	Inspect and replace steering driveshaft (Gear to Floor R & R)

Procedure

To inspect the steering shaft, the service technician will need to obtain the Weld Position Gage # IF-35029 DET.3 REV-D (being supplied no-charge to all Kenworth dealers, attn: Service Manager, by TRW in their kit # GK0001).

The inspection procedure is detailed in TRW's Service Procedure # COL-194 (attached).

If you need a replacement Weld Position Gage, please email col194.campaign@trw.com, and ask for kit part # **GK0001**.

Attachments

TRW SP COl-194.pdf