

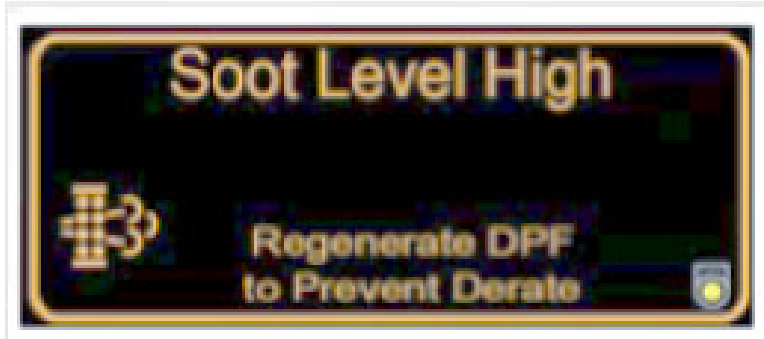


A PACCAR COMPANY

## Technical Information Bulletin

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### E276



### Section

Engine

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### Subject

P1710 set for MY20/19 PACCAR MX-13 Engines with RC03/04 and rated at or below 456 HP

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### Release Date

2/24/2021

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### Condition

DTC P1710 sets, possibly with P3797 and one of more of the following P-codes; P3794, P3791, P3796, P3798, or P3861 after engine software was updated to RC03-04.

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### Chassis Affected

Chassis with MY20/19 PACCAR MX Engines equipped with HE400 turbo that received software updates to RC03/04.

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### Action

#### Fix-As-Fail

If a customer comes into your dealership and demonstrates the condition above, perform diagnostics in the procedure below.

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### Warranty

Through Standard Warranty or any applicable active Extended Warranty, Kenworth will pay for parts at dealer net plus applicable mark-up and labor:

Refer to the E276 claim description included in the attachments for additional information about claims.

- 3.5 hours labor for T680 chassis, to perform troubleshooting WITHOUT DPF cleaning. Use Quick Claim code E276A.
- 3.4 hours labor for T880/W990 chassis, to perform troubleshooting WITHOUT DPF cleaning. Use Quick Claim code E276B.
- 5.7 hours labor for T680 chassis, to perform troubleshooting WITH DPF cleaning. Use Quick Claim code E276C.
- 5.6 hours labor for T880/W990 chassis, to perform troubleshooting WITH DPF cleaning. Use Quick Claim code E276D.
- 4.9 hours labor for T680 chassis, to perform troubleshooting WITH DPF REPLACEMENT. Use Quick Claim code E276E.
- 4.8 hours labor for T680 chassis, to perform troubleshooting WITH DPF REPLACEMENT. Use Quick Claim code E276F.
- File an additional claim for parts replacement and/or extraordinary circumstances. A quick claim for standard labor must be filed first.

Kenworth dealers may perform E276 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 applicable codes per the Claim Coding table below.

**Take-Off Parts Disposition: Destroy take-off parts 30 days after claim is paid**

PWRS CLAIM CODING			
Campaign Code:	N/A	Campaign Type	Field Repair
Claim Category:	Engine	Repair Type	Fix-As-Fail
Customer Concern Code	207	Causal Code	93
Corrective Action Code	09	Responsibility Code:	Camp
Failure Location	045-021-003	Causal Part	2037394
Supplier Code	N/A	SRT Code	TBD

DWC CLAIM CODING			
Failure Location:	045-021-003	Work Accomplished:	69
Failure Type:	363	Responsibility Code:	01
SRT Code:	TBD	Claim Type:	A/D
Vendor Code:	N/A	Campaign Field:	N/A

**Parts**

Parts are available from PACCAR Parts.

Table 1 Parts required for all repairs

Quantity	Part Number	Description
2	2154680PE	Sealing ring
1	1907399PE	Air inlet gasket
2	1924315PE	Sealing ring

Table 2 Parts required if DPF cleaning is needed

Quantity	Part Number	Description
2	2011938PE	Exhaust gasket
2	2011939PE	V-band clamp

Quantity	Part Number	Description
1	LP34216	Clamp-Vband, 5 in. Spherical
1	1827320PE	Spherical Gasket (5 in.)

Table 3 Parts required if DPF replacement is needed

Quantity	Part Number	Description
2	2011938PE	Exhaust gasket
2	2011939PE	V-band clamp
1	LP34216	Clamp-Vband, 5 in. Spherical
1	1827320PE	Spherical Gasket (5 in.)
1	21315331PE	DPF Element

## Background

Customers with "Over the Air" (OTA) software update subscriptions have received a notification that the MY20/19 RC04/05 software is available for their chassis.

This specific message was provided to customers:

Software update contains performance improvements and reduces the occurrences of dash warning lamps, including a calibration update that may greatly reduce vehicle down-time related to frequent aftertreatment regeneration requests. For more information, please contact your dealer.

## Procedure

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

Chassis with P1710 set, possibly with P3797 in addition, and RC03/04 software are expected to have high soot loads.

1. Use RMI to confirm the HP rating is at or below 456 hp.
  - a. **If the rating is above 456**, then perform normal diagnostics for P1710.
  - b. **If the rating is at or below 456**, continue with this procedure.

Characteristics	Hardware	Software	Systems	History	DAVIE download The Content may differ from data on this page
<b>Vehicle identification data</b>					
120	Specification week				201841
137	Engine type				MX-13
122	Exhaust emission				EPA17
103	Series				MX_EPA17
<b>General vehicle data</b>					
126	Engine power				MV303KW
165	ID Card Status				D
080	VIN number				1NKZXPEX0KJ207808
104	Vehicle type				MX-13 USA
119	Type code				M4650L
051	Transport number				84014
159	Type				V-MOT
105	Country specification				US-UIV
240	Engine power				405hp / 303kW

2. **If P3797 and one of more of the following P-codes are present; P3794, P3791, P3796, P3798, or P3861;** remove and inspect the DPF. Clean the DPF as needed while performing troubleshooting referenced in Step 3.
  - If the DPF was cleaned, record before and after flow rates on the FSX cleaning worksheet. Submit the worksheet with the warranty claim.
3. [Perform troubleshooting in the attached E276 Troubleshooting procedure.](#)

4. Download and save the following files. These files will be required to be uploaded to the TCS365 case if the P1710 becomes active after the software update and running the regen.
    - DAVIE4 log file
    - Trip/Chart recorder
    - Extended Regeneration Report
  5. Update the engine software to RC04/05 or higher.
  6. Run a stationary regeneration for verification.
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## **Attachments**

 [E276 Troubleshooting](#)

 [E276 Claim Descriptions](#)

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Authored by: OF

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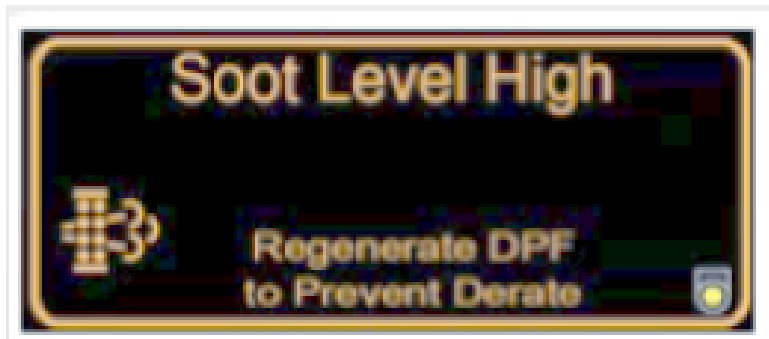
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# Technical Information Bulletin

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## E276



### Section

Engine

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### Subject

P1710 set for MY20/19 PACCAR MX-13 Engines with RC03/04 and rated at or below 456 HP

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### Release Date

2/24/2021

---

### Condition

DTC P1710 sets, possibly with P3797 and one of more of the following P-codes; P3794, P3791, P3796, P3798, or P3861 after engine software was updated to RC03-04.

---

### Chassis Affected

Chassis with MY20/19 PACCAR MX Engines equipped with HE400 turbo that received software updates to RC03/04.

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### Action

#### Fix-As-Fail

If a customer comes into your dealership and demonstrates the condition above, perform diagnostics in the procedure below.

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### Warranty

Through Standard Warranty or any applicable active Extended Warranty, Kenworth will pay for parts at dealer net plus applicable mark-up and labor:  
Refer to the E276 claim worksheet for additional information about claims.

- 3.5 hours labor for Model 579 chassis, to perform troubleshooting WITHOUT DPF cleaning. Use Quick Claim code E276A.
- 3.4 hours labor for Model 567 chassis, to perform troubleshooting WITHOUT DPF cleaning. Use Quick Claim code E276B.
- 5.7 hours labor for Model 579 chassis, to perform troubleshooting WITH DPF cleaning. Use Quick Claim code E276C.
- 5.6 hours labor for Model 567 chassis, to perform troubleshooting WITH DPF cleaning. Use Quick Claim code E276D.
- 4.9 hours labor for Model 579 chassis, to perform troubleshooting WITH DPF REPLACEMENT. Use Quick Claim code E276E.
- 4.9 hours labor for Model 579 chassis, to perform troubleshooting WITH DPF REPLACEMENT. Use Quick Claim code E276F.
- File an additional claim for parts replacement and/or extraordinary circumstances. A quick claim for standard labor must be filed first.

Peterbilt dealers may perform E276 repairs on Kenworth chassis, but Quick Claims do not apply. For Kenworth 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 applicable codes per the Claim Coding table below.

**Take-Off Parts Disposition: Destroy take-off parts 30 days after claim is paid**

PWRS CLAIM CODING			
Campaign Code:	N/A	Campaign Type	Field Repair
Claim Category:	Engine	Repair Type	Fix-As-Fail
Customer Concern Code	207	Causal Code	93
Corrective Action Code	09	Responsibility Code:	Camp
Failure Location	045-021-003	Causal Part	2037394
Supplier Code	N/A	SRT Code	TBD

DWC CLAIM CODING			
Failure Location:	045-021-003	Work Accomplished:	69
Failure Type:	363	Responsibility Code:	01
SRT Code:	TBD	Claim Type:	A/D
Vendor Code:	E276-00	Campaign Field:	E276

**Parts**

Parts are available from PACCAR Parts.

**Table 1 Parts required for all repairs**

Quantity	Part Number	Description
2	2154680	Sealing ring
1	1907399	Air inlet gasket
2	1924315	Sealing ring

Table 2 Parts required if DPF cleaning is needed

Quantity	Part Number	Description
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Quantity	Part Number	Description
2	2011938	Exhaust gasket
2	2011939	V-band clamp
1	LP34216	Clamp-Vband, 5 in. Spherical
1	A029E744	Spherical Gasket (5 in.)

Table 3 Parts required if DPF replacement is needed

Quantity	Part Number	Description
2	2011938	Exhaust gasket
2	2011939	V-band clamp
1	LP34216	Clamp-Vband, 5 in. Spherical
1	A029E744	Spherical Gasket (5 in.)
1	21315331	DPF Element

## Background

Customers with "Over the Air" (OTA) software update subscriptions have received a notification that the MY20/19 RC04/05 software is available for their chassis.

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## Procedure

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

Chassis with P1710 set, possibly with P3797 in addition, and RC03/04 software are expected to have high soot loads.

1. Use RMI to confirm the HP rating is at or below 456 hp.
  - a. **If the rating is above 456**, then perform normal diagnostics for P1710.
  - b. **If the rating is at or below 456**, continue with this procedure.

Characteristics	Hardware	Software	Systems	History	DAVIE download The Content may differ from data on this page
<b>Vehicle identification data</b>					
120	Specification week				201841
137	Engine type				MX-13
122	Exhaust emission				EPA17
103	Series				MX_EPA17
<b>General vehicle data</b>					
126	Engine power				MV303KW
165	ID Card Status				D
080	VIN number				1NKZXPEX0KJ207808
104	Vehicle type				MX-13 USA
119	Type code				M4650L
051	Transport number				84014
159	Type				V-MOT
105	Country specification				US-U1TV
240	Engine power				405hp / 303kW

2. **If P3797 and one of more of the following P-codes are present; P3794, P3791, P3796, P3798, or P3861;** remove and inspect the DPF. Clean the DPF as needed while performing troubleshooting referenced in Step 3.

- If the DPF was cleaned, record before and after flow rates on the FSX cleaning worksheet. Submit the worksheet with the warranty claim.
- 3. [Perform troubleshooting in the attached E276 Troubleshooting procedure.](#)
- 4. Download and save the following files. These files will be required to be uploaded to the TCS365 case if the P1710 becomes active after the software update and running the regen.
  - DAVIE4 log file
  - Trip/Chart recorder
  - Extended Regeneration Report
- 5. Update the engine software to RC04/05 or higher.
- 6. Run a stationary regeneration for verification.

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## **Attachments**

 [E276 Troubleshooting](#)

 [E276 Claim Descriptions](#)

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Authored by: DKH

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P1710 set for MY20/19 PACCAR MX-13 or MX-11 Engines with RC03/04

**PSB**  
**KW E276**  
**PB E276**

**Revision 1**

**Unsecured document. Confirm this is the latest revision with each use.**

## P1710 Diagnostic Process

This process differs from the RMI P1710 diagnostic process due to the very specific circumstances described in PSB E276.

### Step-by-step troubleshooting



**CAUTION**

**The ignition must always be in the OFF position when connecting or disconnecting electrical components to reduce the likelihood of damage to the components.**



- This troubleshooting procedure is based on the assumption that supply power and ground to the PCI function properly.
- Disconnecting the PCI connectors during the troubleshooting process will result in multiple DTCs.
- Specific electrical component information and pin out locations are provided in this procedure as a reference only. Always refer to the technical data for the most up-to-date changes.
- It is necessary to use DAVIE to clear all current DTCs from the PCI and EAS ECUs, and then run the vehicle check to identify a change in fault status.
- This DTC can set as a result of multiple failure modes. For proper fault isolation, complete all troubleshooting steps in the sequence provided.

## Step 1 - Inlet and exhaust system checks

<b>Step 1A - Visual inspection, soot buildup, air management sensors</b>	
<b>Action</b>	
1. Remove and inspect the following air management sensors for soot buildup: <ul style="list-style-type: none"> <li>▪ Boost temperature sensor (F804)</li> </ul>	
Was there evidence of the above?	
<b>YES</b>	<b>NO</b>
Correct any issues found.	
<b>Go to step 1B</b>	

<b>Step 1B - DAVIE monitor, inlet and exhaust system pressure sensors</b>	
<b>Action</b>	
<ol style="list-style-type: none"> <li>1. Key ON the ignition with the engine OFF.</li> <li>2. Use DAVIE to monitor the following inlet and exhaust system pressure signals: <ul style="list-style-type: none"> <li>▪ [Inlet air pressure before compressor (Relative)]</li> <li>▪ [Inlet air pressure in inlet manifold (Relative)]</li> <li>▪ [Exhaust gas pressure after BPV (Relative)]</li> <li>▪ [Exhaust gas pressure before turbine (Relative)]</li> <li>▪ [EGR differential pressure]</li> </ul> <p style="margin-left: 40px;">All expected readings must be approximately 0 psi.</p> </li> <li>3. Use DAVIE to monitor the [Ambient pressure (Absolute)] signal – from inside PCI ECU (D420). The expected reading must be approximately equal to local barometric conditions.</li> </ol>	
Were all monitored signal values plausible?	
<b>YES</b>	<b>NO</b>
	Remove the faulty sensor and inspect the sensor tip, sensor port, connector, and pins for debris, soot buildup, or damage. Correct any issues found. If necessary, replace the sensor.
<b>Go to step 2</b>	



## Step 2 - EGR system checks

<b>Step 2A - Visual inspection, connections and wiring, EGR temperature sensor (F749)</b>	
<b>Action</b>	
<ol style="list-style-type: none"> <li>1. Remove the EGR temperature sensor (F749) from the EGR venturi.</li> <li>2. Visually inspect the EGR temperature sensor for any of the following: <ul style="list-style-type: none"> <li>▪ Damaged connectors and pins</li> <li>▪ Moisture or dirt in the connectors</li> <li>▪ Damage to the wire harness or insulation</li> <li>▪ Soot buildup on sensor tip</li> </ul> </li> </ol>	
Was there evidence of any of the above?	
<b>YES</b>	<b>NO</b>
Correct any issues found.	
<b>Go to step 2B</b>	
<b>Step 2B - Visual inspection, connections and wiring, EGR pressure difference sensor (F751)</b>	
<b>Action</b>	
<ol style="list-style-type: none"> <li>1. Remove the EGR pressure difference sensor (F751) from the EGR venturi.</li> <li>2. Visually inspect the EGR pressure difference sensor for any of the following: <ul style="list-style-type: none"> <li>▪ Damaged connectors and pins</li> </ul> </li> </ol>	

<ul style="list-style-type: none"> <li>▪ Moisture or dirt in the connectors</li> <li>▪ Damage to the wire harness or insulation</li> <li>▪ Soot buildup on sensor tip</li> <li>▪ Improper seal between the sensor and mounting block</li> </ul>	
Was there evidence of any of the above?	
<b>YES</b>	<b>NO</b>
Correct any issues found.	
<b>Go to step 2C</b>	
<b>Step 2C - Special test, sensitivity checks, EGR pressure difference sensor (F751)</b>	
<b>i</b>	Refer to the corresponding checking data for associated supply and signal voltages, resistance values, and related connector pin test points.
<b>Action</b>	
1. Perform a sensitivity check as described in " <a href="#">Checking data, EGR pressure difference sensor (F751)</a> ".	
Did the test result in a failed state?	
<b>YES</b>	<b>NO</b>
Replace the EGR pressure difference sensor (F751). Do not install until after completed Step 2D.	
<b>Go to step 2D</b>	
<b>Step 2D – Visual inspection, EGR venturi</b>	
<b>Action</b>	
1. Inspect the EGR pressure difference ports/drillings for blockage and coolant.	
2. Remove the air inlet pipe and check for excessive soot accumulation and signs of coolant in the EGR venturi.	
Were there signs of coolant or excessive soot in EGR venturi and EGR difference sensor ports/drillings?	
<b>YES</b>	<b>NO</b>
Remove and clean the EGR venturi and EGR differential pressure sensor ports. Diagnose and correct coolant loss issue if there are signs of coolant in the venturi.	
<b>Install all removed parts.</b>	
<b>Go to step 3</b>	


### Step 3 - NOx sensor before catalyst (F844) checks

<b>Step 3A - Visual inspection, connections and wiring, NOx sensor before catalyst (F844)</b>	
<b>i</b>	The DPF must be installed, if it was removed, before continuing with troubleshooting.

<b>Action</b>	
1. Visually inspect the associated component connections and wiring for any of the following: <ul style="list-style-type: none"> <li>▪ Damaged or loose connectors</li> <li>▪ Bent, broken, corroded or loose connector pins</li> <li>▪ Pushed back or expanded pins</li> <li>▪ Moisture or dirt in the connections</li> <li>▪ Damaged connector shell or seals</li> <li>▪ Damage to the wire harness or insulation</li> <li>▪ NOx sensor before catalyst (F844) damaged or not installed correctly</li> </ul>	
Was there evidence of any of the above?	
<b>YES</b>	<b>NO</b>
Correct any issues found.	
<b>Go to step 3B</b>	
<b>Step 3B - DAVIE test, [Evaluate the NOx sensor before catalyst] 043-866 0.3 hours</b>	
 <p><b>WARNING</b>  <b>Aborting a DAVIE-initiated diagnostic test is not recommended.</b>  <b>However, if a test needs to be aborted, perform a key cycle to reset the PCI ECU.</b>  <b>Failure to reset the PCI ECU in this instance can result in personal injury or damage to the vehicle.</b></p>	
<b>Action</b>	
1. Use DAVIE to perform an [Evaluate the NOx sensor before catalyst] test. Refer to <a href="#">"Evaluate the NOx sensor before catalyst"</a> for additional information.	
 <p>If this test fails to complete, repeat the test up to three times.</p>	
Did the test result in a failed state or fail to complete three times?	
<b>YES</b>	<b>NO</b>
Replace the NOx sensor.	The NOx sensor passed the test.
<b>Go to step 4</b>	

## Step 4 - VTG turbocharger actuator (L171) checks

<b>Step 4A - Visual inspection, connections and wiring, VTG turbocharger actuator (L171)</b>	
<b>Action</b>	
1. Visually inspect the associated component connections and wiring for any of the following: <ul style="list-style-type: none"> <li>▪ Broken or missing clamps around the turbocharger</li> <li>▪ Damaged or loose connectors</li> <li>▪ Bent, broken, corroded or loose connector pins</li> </ul>	

<ul style="list-style-type: none"> <li>▪ Pushed back or expanded pins</li> <li>▪ Moisture or dirt in the connections</li> <li>▪ Damaged connector shell or seals</li> <li>▪ Damage to the wire harness or insulation</li> <li>▪ VTG turbocharger or VTG turbocharger actuator (L171) damaged or not installed correctly</li> </ul>	
Was there evidence of any of the above?	
<b>YES</b>	<b>NO</b>
Correct any issues found. Go to step 4A to perform the repair verification.	
<b>Go to step 4B</b>	
<b>Step 4B - DAVIE test, [Evaluate the turbo actuator functionality]</b>	
 <p><b>WARNING</b>  <b>Aborting a DAVIE-initiated diagnostic test is not recommended.</b>  <b>However, if a test needs to be aborted, perform a key cycle to reset the PCI ECU.</b>  <b>Failure to reset the PCI ECU in this instance can result in personal injury or damage to the vehicle.</b></p>	
<b>Action</b>	
<p>1. Use DAVIE to perform the [Evaluate the turbo actuator functionality] test to determine correct operation of the VTG actuator.  Refer to "<a href="#">Evaluate the turbo actuator functionality</a>" for additional information.</p>	
Did the test fail to complete or result in a failed state?	
<b>YES</b>	<b>NO</b>
<p>Problem with VTG turbocharger or turbocharger actuator.  Follow the steps outlined in DAVIE to determine the faulty component.  Refer to the jobs for VTG turbocharger or VTG turbocharger actuator (L171) replacement as needed.</p>	<p>The VTG turbocharger and turbocharger actuator are operating properly.</p>
<b>Go to Step 4 of PSB E276</b>	

## E276 Bulletin Quick Claim Descriptions

	A	B	C	D	E	F	G
1	Description	SRT	Time	QC descriptions	Parts included with QC		
2	E276A KW Model T680/ PB Model 579 TS & SW UPDATE				Qty	Part Number	Description
3	Bulletin E276, Step By Step Trouble shooting Guide P1710, SRT covers process defined in E276 Bulletin. Does not include SRT's listed In Quick Claims.	043-276	1.40	Performed diagnostics per E276. No additional issues found. Update engine software.	2	2154680PE	Sealing ring
4	EGR Venturi R&R Per RMI Steps (Includes Thermostat O-rings) For MX13 This Includes Charge Air Pipe R&R And Intake Pipe R&R For Access - Add-Ons If Applicable - 100-529 Batt Disc, 014-114 Bumper, 043-523 Wash/Clean	043-520	0.70		1	1907399PE	Air inlet gasket
5	Wash/Clean-If applicable - Venturi, EGR system	043-523	0.20		2	1924315PE	Sealing ring
6	Aerodynamic bumper, one piece – R&R use for T680 and T660 only	014-114	0.10				
7	Battery - Disconnect batteries for troubleshooting or when required by RMI R&R procedure (Includes fairing/step R&R)	100-529	0.20				
8	DAVIE 4- Download new software to PCI/ECM. (Includes programming both the PCI and ACM. Includes clearing erroneous fault codes from programming. Includes hooking up and charging batteries). Add on SRT - 045-967 required before programming.	045-986	0.40				
9	Processing Davie file through PVP for programming. To only be used in conjunction with 045-966, 045-986 or 026-500(PACCAR Transmission only) (Can only be used once per claim)	045-967	0.10				
10	Stationary regen for verification	043-630	0.40				
11	Total		3.5				
12	E276B KW Models T880/W990/ PB Model 567 TS & SW UPDATE				Qty	Part Number	Description
13	Bulletin E276, Step By Step Trouble shooting Guide P1710, SRT covers process defined in E276 Bulletin. Does not include SRT's listed In Quick Claims.	043-276	1.40	Performed diagnostics per E276. No additional issues found. Update engine software.	2	2154680PE	Sealing ring
14	EGR Venturi R&R Per RMI Steps (Includes Thermostat O-rings) For MX13 This Includes Charge Air Pipe R&R And Intake Pipe R&R For Access - Add-Ons If Applicable - 100-529 Batt Disc, 014-114 Bumper, 043-523 Wash/Clean	043-520	0.70		1	1907399PE	Air inlet gasket
15	Wash/Clean-If applicable - Venturi, EGR system	043-523	0.20		2	1924315PE	Sealing ring
16	Battery - Disconnect batteries for troubleshooting or when required by RMI R&R procedure (Includes fairing/step R&R)	100-529	0.20				
17	DAVIE 4- Download new software to PCI/ECM. (Includes programming both the PCI and ACM. Includes clearing erroneous fault codes from programming. Includes hooking up and charging batteries). Add on SRT - 045-967 required before programming.	045-986	0.40				
18	Processing Davie file through PVP for programming. To only be used in conjunction with 045-966, 045-986 or 026-500(PACCAR Transmission only) (Can only be used once per claim)	045-967	0.10				
19	Stationary regen for verification	043-630	0.40				
20	Total		3.4				

## E276 Bulletin Quick Claim Descriptions

	A	B	C	D	E	F	G
21	E276C KW Model T680/ PB Model 579 TS, Clean DPF & SW UPDATE				Qty	Part Number	Description
22	Bulletin E276, Step By Step Trouble shooting Guide P1710, SRT covers process defined in E276 Bulletin. Does not include SRT's listed in Quick Claims.	043-276	1.40	Performed diagnostics per E276. Cleaned DPF. Update engine software.	2	2154680PE	Sealing ring
23	EGR Venturi R&R Per RMI Steps (Includes Thermostat O-rings) For MX13 This Includes Charge Air Pipe R&R And Intake Pipe R&R For Access - Add-Ons If Applicable - 100-529 Batt Disc, 014-114 Bumper, 043-523 Wash/Clean	043-520	0.70		1	1907399PE	Air inlet gasket
24	Wash/Clean-If applicable - Venturi, EGR system	043-523	0.20		2	1924315PE	Sealing ring
25	Aerodynamic bumper, one piece – R&R use for T680 and T660 only	014-114	0.10		2	2188190PE	Exhaust gasket
26	Battery - Disconnect batteries for troubleshooting or when required by RMI R&R procedure (Includes fairing/step R&R)	100-529	0.20		2	2011939PE	V-band clamp
27	Diesel Particulate Filter (DPF) - R & R - Add Ons If Applicable - 100-529 Batt Disc, 043-068 DPF Inspection, 004-022 Center Fairing	043-070	1.00		1	LP34216	Clamp-Vband, 5 Inch Spherical
28	Check DPF Filter - Visually inspect the DPF element (Does not include DPF R&R)	043-068	0.20		1	1827320PE	Spherical Gasket (5")
29	Clean DPF element (Does not include DPF R&R)	043-069	0.80				
30	Skirt Fairing, Center, LH or RH (one)- R & R Includes all access.	004-022	0.20				
31	DAVIE 4- Download new software to PCI/ECM. (Includes programming both the PCI and ACM. Includes clearing erroneous fault codes from programming. Includes hooking up and charging batteries). Add on SRT - 045-967 required before programming.	045-986	0.40				
32	Processing Davie file through PVP for programming. To only be used in conjunction with 045-966, 045-986 or 026-500(PACCAR Transmission only) (Can only be used once per claim)	045-967	0.10				
33	Stationary regen for verification	043-630	0.40				
34	Total		5.7				
35	E276D KW Models T880/W990/ PB Model 567 TS, Clean DPF & SW UPDATE				Qty	Part Number	Description
36	Bulletin E276, Step By Step Trouble shooting Guide P1710, SRT covers process defined in E276 Bulletin. Does not include SRT's listed in Quick Claims.	043-276	1.40	Performed diagnostics per E276. Cleaned DPF. Update engine software.	2	2154680PE	Sealing ring
37	EGR Venturi R&R Per RMI Steps (Includes Thermostat O-rings) For MX13 This Includes Charge Air Pipe R&R And Intake Pipe R&R For Access - Add-Ons If Applicable - 100-529 Batt Disc, 014-114 Bumper, 043-523 Wash/Clean	043-520	0.70		1	1907399PE	Air inlet gasket
38	Wash/Clean-If applicable - Venturi, EGR system	043-523	0.20		2	1924315PE	Sealing ring
39	Battery - Disconnect batteries for troubleshooting or when required by RMI R&R procedure (Includes fairing/step R&R)	100-529	0.20		2	2188190PE	Exhaust gasket
40	Diesel Particulate Filter (DPF) - R & R - Add Ons If Applicable - 100-529 Batt Disc, 043-068 DPF Inspection, 004-022 Center Fairing	043-070	1.00		2	2011939PE	V-band clamp
41	Check DPF Filter - Visually inspect the DPF element (Does not include DPF R&R)	043-068	0.20		1	LP34216	Clamp-Vband, 5 Inch Spherical
42	Clean DPF element (Does not include DPF R&R)	043-069	0.80		1	1827320PE	Spherical Gasket (5")
43	Skirt Fairing, Center, LH or RH (one)- R & R Includes all access.	004-022	0.20				
44	DAVIE 4- Download new software to PCI/ECM. (Includes programming both the PCI and ACM. Includes clearing erroneous fault codes from programming. Includes hooking up and charging batteries). Add on SRT - 045-967 required before programming.	045-986	0.40				
45	Processing Davie file through PVP for programming. To only be used in conjunction with 045-966, 045-986 or 026-500(PACCAR Transmission only) (Can only be used once per claim)	045-967	0.10				
46	Stationary regen for verification	043-630	0.40				
47	Total		5.60				

## E276 Bulletin Quick Claim Descriptions

	A	B	C	D	E	F	G
48	E276E KW Model T680/ PB Model 579 TS, Replace DPF & SW UPDATE				Qty	Part Number	Description
49	Bulletin E276, Step By Step Trouble shooting Guide P1710, SRT covers process defined in E276 Bulletin. Does not include SRT's listed in Quick Claims.	043-276	1.40	Performed diagnostics per E276. DPF not cleanable. Replaced DPF. Update engine software.	2	2154680PE	Sealing ring
50	EGR Venturi R&R Per RMI Steps (Includes Thermostat O-rings) For MX13 This Includes Charge Air Pipe R&R And Intake Pipe R&R For Access - Add Ons If Applicable - 100-529 Batt Disc, 014-114 Bumper, 043-523 Wash/Clean	043-520	0.70		1	1907399PE	Air inlet gasket
51	Wash/Clean-If applicable - Venturi, EGR system	043-523	0.20		2	1924315PE	Sealing ring
52	Aerodynamic bumper, one piece – R&R use for T680 and T660 only	014-114	0.10		2	2188190PE	Exhaust gasket
53	Battery - Disconnect batteries for troubleshooting or when required by RMI R&R procedure (Includes fairing/step R&R)	100-529	0.20		2	2011939PE	V-band clamp
54	Diesel Particulate Filter (DPF) - R & R - Add Ons If Applicable - 100-529 Batt Disc, 043-068 DPF Inspection, 004-022 Center Fairing	043-070	1.00		1	LP34216	Clamp-Vband, 5 Inch Spherical
55	Check DPF Filter - Visually inspect the DPF element (Does not include DPF R&R)	043-068	0.20		1	1827320PE	Spherical Gasket (5")
56	Skirt Fairing, Center, LH or RH (one)- R & R Includes all access.	004-022	0.20		1	2131533PE	DPF element
57	DAVIE 4- Download new software to PCI/ECM. (Includes programming both the PCI and ACM. Includes clearing erroneous fault codes from programming. Includes hooking up and charging batteries). Add on SRT - 045-967 required before programming.	045-986	0.40				
58	Processing Davie file through PVP for programming. To only be used in conjunction with 045-966, 045-986 or 026-500(PACCAR Transmission only) (Can only be used once per claim)	045-967	0.10				
59	Stationary regen for verification	043-630	0.40				
60	Total		4.9				
61	E276F KW Models T880/W990/ PB Model 567 TS, Replace DPF & SW UPDATE				Qty	Part Number	Description
62	Bulletin E276, Step By Step Trouble shooting Guide P1710, SRT covers process defined in E276 Bulletin. Does not include SRT's listed in Quick Claims.	043-276	1.40	Performed diagnostics per E276. DPF not cleanable. Replaced DPF. Update engine software.	2	2154680PE	Sealing ring
63	EGR Venturi R&R Per RMI Steps (Includes Thermostat O-rings) For MX13 This Includes Charge Air Pipe R&R And Intake Pipe R&R For Access - Add Ons If Applicable - 100-529 Batt Disc, 014-114 Bumper, 043-523 Wash/Clean	043-520	0.70		1	1907399PE	Air inlet gasket
64	Wash/Clean-If applicable - Venturi, EGR system	043-523	0.20		2	1924315PE	Sealing ring
65	Battery - Disconnect batteries for troubleshooting or when required by RMI R&R procedure (Includes fairing/step R&R)	100-529	0.20		2	2188190PE	Exhaust gasket
66	Diesel Particulate Filter (DPF) - R & R - Add Ons If Applicable - 100-529 Batt Disc, 043-068 DPF Inspection, 004-022 Center Fairing	043-070	1.00		2	2011939PE	V-band clamp
67	Check DPF Filter - Visually inspect the DPF element (Does not include DPF R&R)	043-068	0.20		1	LP34216	Clamp-Vband, 5 Inch Spherical
68	Skirt Fairing, Center, LH or RH (one)- R & R Includes all access.	004-022	0.20		1	1827320PE	Spherical Gasket (5")
69	DAVIE 4- Download new software to PCI/ECM. (Includes programming both the PCI and ACM. Includes clearing erroneous fault codes from programming. Includes hooking up and charging batteries). Add on SRT - 045-967 required before programming.	045-986	0.40		1	2131533PE	DPF element
70	Processing Davie file through PVP for programming. To only be used in conjunction with 045-966, 045-986 or 026-500(PACCAR Transmission only) (Can only be used once per claim)	045-967	0.10				
71	Stationary regen for verification	043-630	0.40				
72	Total		4.80				

## E276 Bulletin Quick Claim Descriptions

	A	B	C	D	E	F	G
73	Additional information for long form claims				Qty	Part Number	Description
74	Nox Sensor Before Catalytic Converter (Forward) R&R (F844) - Per RMI Steps - Add Ons If Applicable: 100-529 Battery Disc	043-865	0.2	100-529 is included in QC	1	2236409PE	NOx sensor before the catalyst
75	Turbocharger with VTG - R&R. per RMI steps - Add-Ons If Applicable - 014-114 Bumper, 041-001 Air Cleaner, 043-643 Wash/Clean	043-640	2.4	014-114 included in QC	1	2128139PEX	Turbo
76	Air cleaner	041-001	0.3-0.5	Time is model dependant			
77	Wash/Clean	043-643	0.2				
78	Turbo Actuator R&R (L037) - per RMI steps - Add Ons if Applicable 100-529 Battery Disc, 014-114 Bumper (includes initializing)	043-645	0.8	014-114 and 100-529 is included in QC	1	2192476PEX	VGT actuator
79				SRT covered in Quick Claim	1	1893478PE	Air temperature sensor
80				SRT covered in Quick Claim	1	1873020PE	Temperature sensor, EGR
81				SRT covered in Quick Claim	1	2003641PE	Pressure difference sensor, EGR
82				SRT covered in Quick Claim	1	2237100PE	Venturi
83				SRT covered in Quick Claim	2	0612996PE	Sealing plug, fine metric thread