

# Authorized Field Change

AFC 05915

**Date:** June, 2006

**Subject File:** ELECTRICAL

**Subject:** The Engine to Dash Harness used with Caterpillar and Cummins Engines in Certain International® 7000, 8000 HPV Models Built Between May 18, 2001 and April 28, 2005 may have a Missing Harness Connector Seal

Model: 7300

Start Date: 05/18/2001 End Date: 04/28/2005

Model: 7400

Start Date: 05/18/2001 End Date: 04/28/2005

Model: 7500

Start Date: 05/18/2001 End Date: 04/28/2005

Model: 7600

Start Date: 05/18/2001 End Date: 04/28/2005

Model: 7700

Start Date: 05/18/2001 End Date: 04/28/2005

Model: 8500

Start Date: 05/18/2001 End Date: 04/28/2005

Model: 8600

Start Date: 05/18/2001 End Date: 04/28/2005

## DESCRIPTION

The engine to dash harness, 24 pin connector, used with Caterpillar and Cummins engines in certain International® 7000, 8000 HPV Models built between May 18, 2001 and April 28, 2005 may have a missing connector seal that may result in connector pin corrosion. This campaign will require inspection of connector 4103 pins, male and female, for corrosion, removing corrosion from the pins, and installing a seal. If the connector can not be cleaned of corrosion the engine to dash harness will require replacement and the female pins corresponding to the corroded male pins replaced.

## PARTS INFORMATION

Table 1

Part Number	Description	Quantity
8000881R91	Connector Kit Contains the Following:	1
	2591041C1, TECHSPRAY Ecoline Contact Cleaner (1)	
	2591044C1, TECHSPRAY RID-OX Contact Enhancer (1)	
	3559047C1, Connector Gasket Seal (1)	

## PARTS INFORMATION (CONT.)

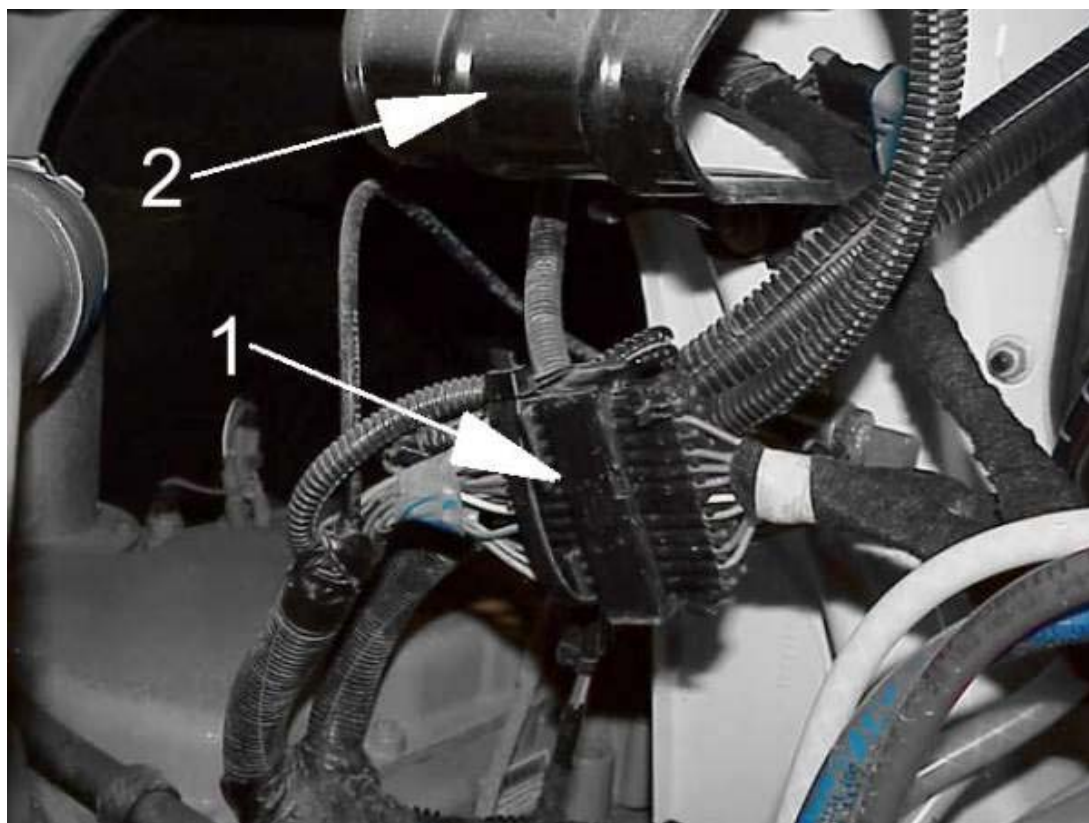
Part Number	Description	Quantity
2506136C1	Connector Female Pin	3 Max.
3559037C1	Connector Male Pin	3 Max.

**NOTE** – If a new engine harness is required, the part number will be located near the engine ECM connector or contact the International PDC with the vehicle VIN to order the harness.

## SERVICE PROCEDURE

**! WARNING** – To avoid property damage, personal injury, or death, park the vehicle on a flat level surface, set the parking brake, turn the engine off, and chock the wheels.

1. Locate the engine to dash harness connector 4103, on the driver side of the engine and near the windshield wiper motor bracket (Figure 1). Cut tie straps as needed.



**Figure 1** Location of 4103 Connector

1. 4103 Connector
2. Windshield Wiper Motor Bracket

## SERVICE PROCEDURE (CONT.)

### 2. Disconnect harness connector 4103 (Figure 2).

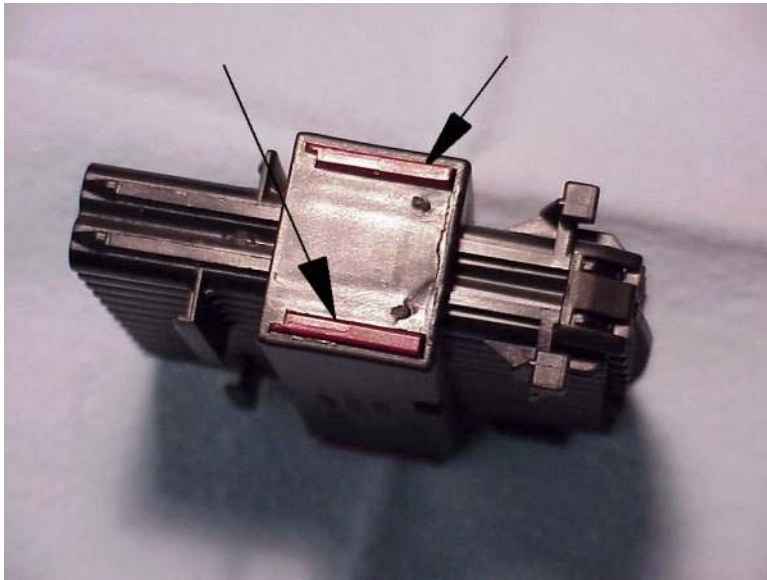
Do not try to pry the connector “red” lock to separate the connector:

- Apply pressure to the two (2) lock tabs (Figure 3) until a clicking sound is heard.
- Slide the lock out to release the connector halves (Figure 4, Item 2)
- To re engage the connector lock, press on the lock tab (Figure 4, Item 1) and slide the lock into the connector.

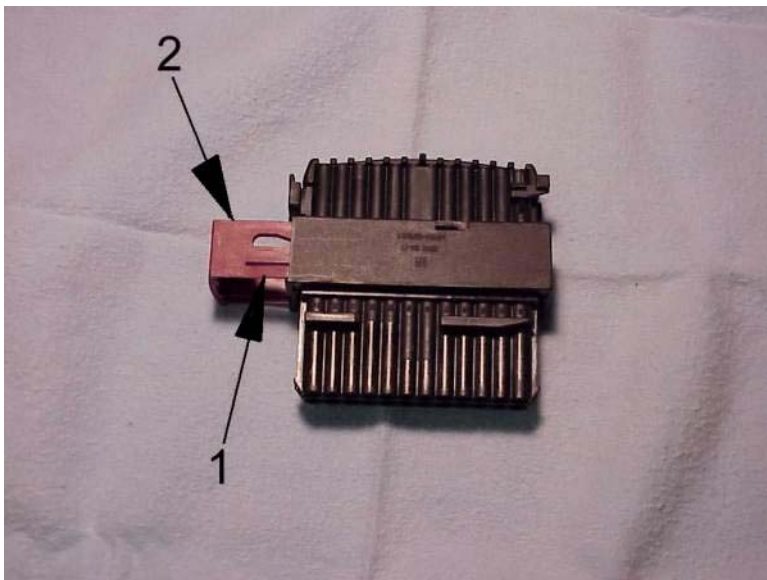


**Figure 2 Disconnect Harness Connector 4103 (Do Not Pry)**

## SERVICE PROCEDURE (CONT.)



**Figure 3** Release Lock Tabs at Arrows



**Figure 4** Connector Lock

1. Release tab to re engage lock
2. Connector lock

**IMPORTANT** – The engine to dash harness is only to be replaced when more than three (3) connector pins are damaged by corrosion.

There are different levels of corrosion that can appear on the connector pin. The pins might exhibit a dark green or blue color corrosion. With this condition the engine harness will need to be replaced. If the connector pins exhibits a light green corrosion the pin will need to be cleaned and inspected for dark spots on the connector pin.

## SERVICE PROCEDURE (CONT.)

3. Inspect the connector pins for corrosion. If there are **no more** than three (3) connector pins with corrosion, spray the connector pins with Ecoline Contact Cleaner from the kit following the instructions on the aerosol can. Use a Q-Tip or equivalent to remove all evidence of corrosion (Figure 5). Re-inspect the pins that were cleaned of corrosion and look for dark spots. If dark spots are present replace up to (3) pins, on both the male and female side of the connector.

**NOTE – If there are more than (3) connector pins with corrosion or dark spots are present, the harness must be replaced. Go to Step 4.**

**If the connector pins can be cleaned of all corrosion and dark spots are NOT present continue:**

- When the connector is dry, spray the connector pin with RID-OX Contact Enhancer from the kit following the instructions on the aerosol can. Wipe off excess spray on the outside surface of the connector.
- Replace the corresponding female pins on the dash harness side of the connector.
- Install the connector seal from the kit (Figure 6).
- Reconnect the connector and replace tie straps that were cut.
- Start the engine and check for proper operation.



**Figure 5 Clean Connector Pins**



## SERVICE PROCEDURE (CONT.)



**Figure 6 Install Connector Seal (Arrow)**

The following Steps are for engine harness replacement.



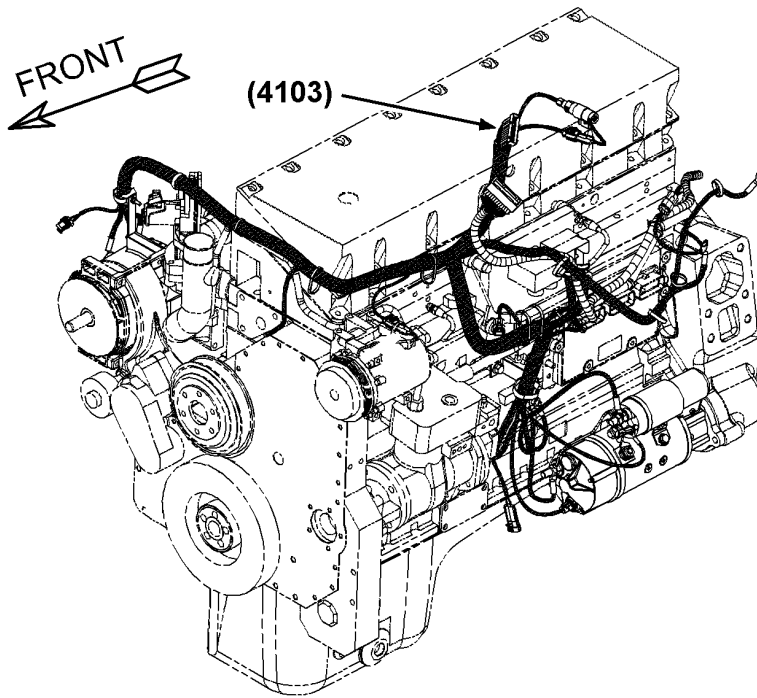
**WARNING** – Batteries expel explosive gases. Keep sparks, flames, burning cigarettes, or other ignition sources away at all times. Always wear safety glasses and a face shield when working near batteries to avoid personal injury.

4. Disconnect the battery negative cable and ECM ground.
5. Remove the passenger side engine splash shield.
6. Remove driver side fender extension.
7. Remove charge air cooler intake hose.
8. Disconnect the fan clutch assembly air line.
9. Disconnect crankcase ventilation breather assembly.
10. Disconnect fan clutch solenoid valve air line at solenoid.
11. Referring to Figure 7, Cummins , or Figure 8, Caterpillar, overlay the new engine harness on the existing harness. Beginning at one end of the old harness start disconnecting the harness connectors and connect the equivalent connectors on the replacement harness. Cut tie straps as needed and take note of the location. Continue working along the old harness to disconnect harness connectors and connect the equivalent connectors on the new harness.

## SERVICE PROCEDURE (CONT.)

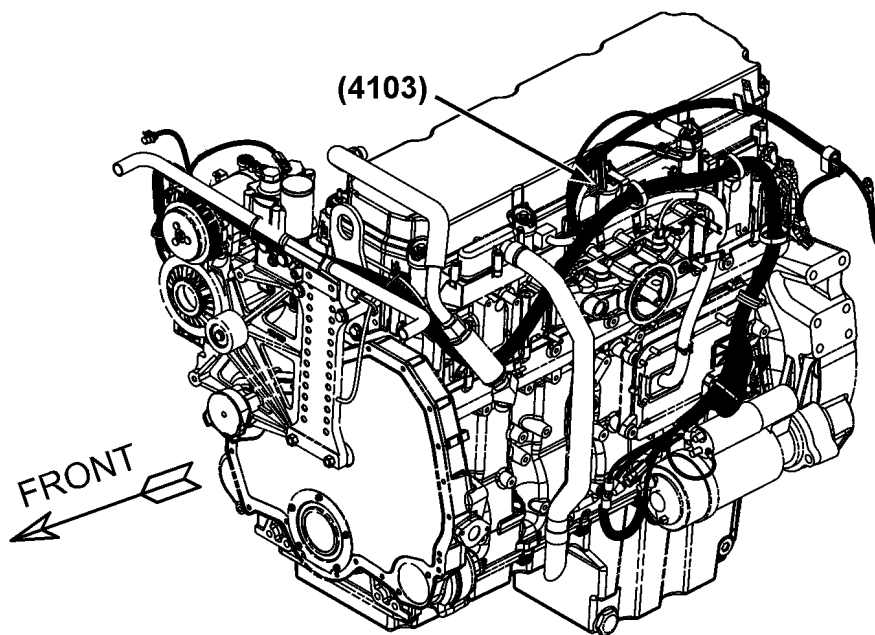
When the new harness is completely installed discard the old harness and install tie straps to replace the tie straps that were removed.

12. Replace the female pins on the dash harness side of connector 4103 that correspond with the corroded male pins.



**Figure 7 Cummins Engine Harness Routing and Location of 24 Pin Connector (4103)**

## SERVICE PROCEDURE (CONT.)



**Figure 8 Caterpillar Engine Harness Routing and Location of 24 Pin Connector (4103)**

13. Re-install / connect components following Steps 4 through 10 in reverse order.
14. Start the engine and check for proper operation.



Operation number must appear on all claims.

**Table 2 Labor Information**

Operation No.	Description	Time
A40-05915-1	Inspect for Connector Corrosion, Clean, and Install Seal	0.3 Hr.
A40-05915-2	Remove and Replace Engine to Chassis Harness	2.6 Hrs.

### ADMINISTRATIVE PROCEDURE

Expense is to be charged to Warranty. Claims are to be submitted in the normal manner, making reference to Authorized Field Change Number G-05915.

It is important that the coding be completed properly to assist in processing the warranty claim. Complete instructions will be found in the Warranty Manual, Section 7-1. Special attention should be given to Items 39 through 44.

To assure this important improvement is made in a timely manner, all claims for G-05915 activity must be submitted by June 30, 2007 or within the normal warranty period for the vehicle, if after June 30, 2007.

GROUP	NOUN	C	WARR.	TP	PAD
GROUP Enter number G—	NOUN Leave blank	C (CAUSE) Enter either 1, 2, 3. (see below)	WARRANTY (Warranty Code) Enter 40.	TYPE PART Enter P for type part causing failure.	PAD Enter 100
		1. Inspected (No repair required).			
		2. Inspected and repaired.			
		3. Defective part from parts stock.			

Distribution: All except J-81

Reproduction: Not required.