

Authorized Field Change



AFC G-04902

Date: June, 2004

Subject File: ENGINE

Subject: Replacement of Pre 2004 Emissions Surge Tanks on 7600, 8600 Models Built Before December 1, 2003 with Caterpillar C11, C13 Acert Engines; and 9200, 9400, 9900i Models Built Before December 20, 2003 with Caterpillar C13 Acert Engines

Vendor: Caterpillar

Truck Model: 7600
End Date: 12/01/2003

Truck Model: 8600
End Date: 12/01/2003

Truck Model: 9200
End Date: 12/20/2003

Truck Model: 9400
End Date: 12/20/2003

Truck Model: 9900i
End Date: 12/20/2003

DESCRIPTION

Certain truck models were built with surge tanks that do not meet Caterpillar deareation specifications. To remedy this, a new design surge tank will be installed.

PARTS INFORMATION

Table 1 [Parts Information](#)

Part Number	Description	Quantity
2587279C91	Surge Tank, 9000 Models	1
2587247C91	Surge Tank, 7600 Model	1
2587114C91	Surge Tank, 8600 Model	1
L2643504	Bulk Hose, 3/8 Inch I.D , 9000 Model	1

PARTS INFORMATION (CONT.)

Table 1 Parts Information (cont.)

Part Number	Description	Quantity
L2643505	Bulk Hose, 1/2 Inch I.D, 7600/8600 Model	1
864457R1	Fitting, 90° Elbow, 1/2 Inch MPT X 1/2 Inch Hose, 7600/8600 Model	1
3591069C1	1/2 Inch Hose Clamp, 7600/8600 Model	2
3554554C1	Cable Swivel Guide, 9000 Model	1
306132C1	Cable Lock Strap, 9000 Model	1
289862C1	Cable Lock Strap, 9000 Model	1

SERVICE PROCEDURE



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



WARNING – Allow the engine to cool down before removing the pressure cap from the deaeration tank. Always insulate the cap by wrapping it with a thick, heavy cloth. To avoid possible injury from scalding coolant or steam, do not pull the pressure cap off immediately when it has been loosened to the first notch. Pause momentarily to allow time for excess pressure to release through the overflow tube.

NOTE – The following Steps are for All Models Except Where Noted

1. Open the hood.
2. Drain the radiator into a suitable clean container for reuse.
3. Disconnect hoses from the surge tank.
4. Disconnect harness connector from the low coolant sensor (Figure 1).

SERVICE PROCEDURE (CONT.)



Figure 1 Disconnect Sensor Harness (9900i Model Shown)

5. Remove the coolant sensor and save for reuse in new surge tank.
6. Remove surge tank mounting bolts (Figure 2).



Figure 2 Removing Mounting Bolts (9900i Model Shown)

SERVICE PROCEDURE (CONT.)

7. **9000 Models:** Loosen the surge tank mounting bracket (Figure 3).



Figure 3 Loosen Bracket Bolts (9900i Model Shown)

8. Remove the surge tank.
9. Install the low coolant sensor into the new surge tank (Figure 4).



Figure 4 Install Sensor to New Surge Tank (9900i Model Shown)

SERVICE PROCEDURE (CONT.)

10. Mount the new surge tank with the bolts removed previously (Figure 5) and tighten the mounting bracket bolts to 21 to 24 Lbf-ft (29 to 32 Nm).



Figure 5 Mount New Surge Tank (9900i Model Shown)

11. Reconnect the 1 inch I.D. hose to the bottom nipple on the surge tank.
12. **9000 Models:** Reconnect the 3/8 inch I.D. hose from the engine thermostat housing to the lower nipple on the surge tank (Figure 7).

7600/8600 Models: Remove the hose and elbow fitting at the engine thermostat housing and install new elbow fitting, Part Number 864457R1. Tighten to 23 to 28 Lbf-ft (31 to 37 Nm). Install hose, Part Number 2643505R1 14 inches long, with hose clamp, Part Number 3591069C1. Attach the other hose end to the 1/2 inch nipple on the surge tank with a hose clamp (Figure 6).

SERVICE PROCEDURE (CONT.)

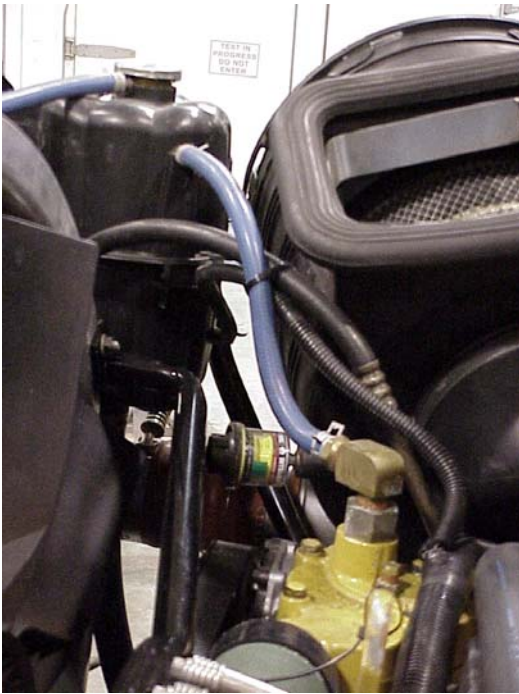


Figure 6 Attach Hose with Clamps (7600 Model Shown)



Figure 7 Reconnect Hose (9900i Model Shown)

13. Remove the radiator 3/8 inch I.D.overflow hose and replace with Part number 2643504R1 (3/8 inch I.D X 43 inches long). Install the conduit from the old hose. Refer to Figure 9 for conduit location on the hose.

SERVICE PROCEDURE (CONT.)

14. **9000 Models:** Turn the hose “P” clip 180 degrees and route the hose through the “P” clip and connect it to the surge tank (Figure 8).

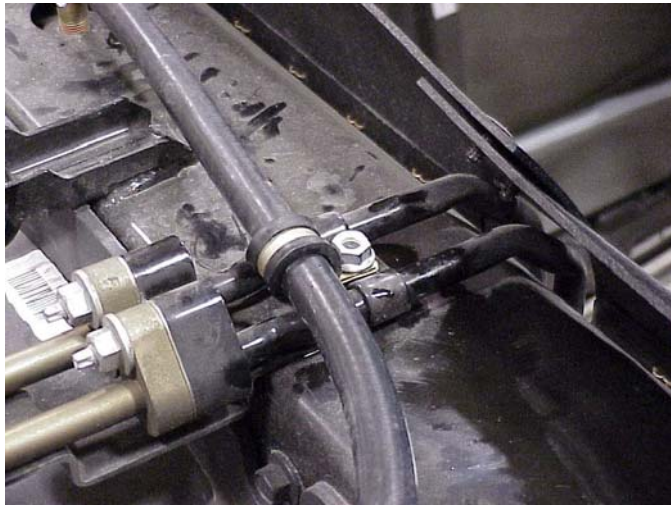


Figure 8 “P” Clip Turned 180° (9900i Model Shown)

15. **9000 Models:** Cable strap the overflow hose to the CAC (charge air cooler) pipe with cable straps and cable swivel guide as shown in Figure 9.

7600/8600 Models: Cable strap the thermostat hose to surge tank hose as shown in Figure 10.

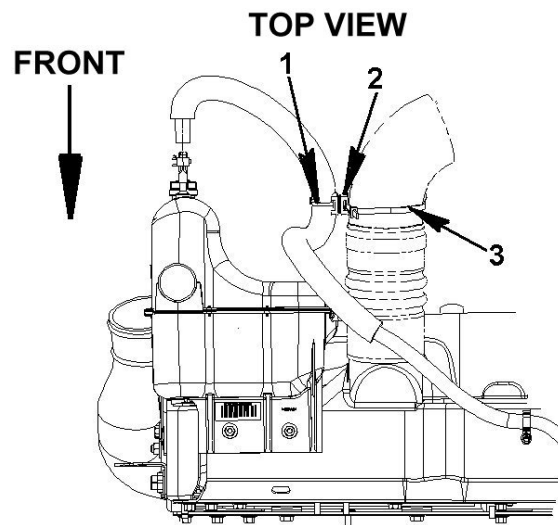


Figure 9 Cable Strap Hose to CAC Pipe (9900i Model Shown)

1. Cable Lock Strap, Part Number 289802C1
2. Cable Swivel Guide, Part Number 3554554C1
3. Cable Lock Strap, Part Number 306132C1

SERVICE PROCEDURE (CONT.)



Figure 10 Cable Strap Hoses (7600 Model Shown)

16. Connect the overflow hose to the top nipple on the new surge tank (Figure 11).

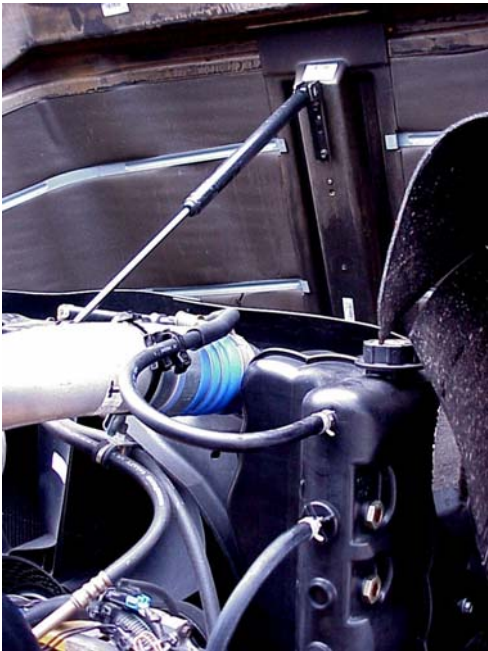


Figure 11 Connect the Overflow Hose (9900i Model shown)

17. Refill the radiator.

18. Close the hood.

Operation number must appear on all claims.

Table 2 Labor Information

Operation No.	Description	Time
A40-04902-1	Remove and Replace Surge Tank	0.8 Hr.

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-04902.

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-04902 activity must be submitted by June 30, 2005 or within the normal warranty period for the vehicle, if after June 30, 2005.

GROUP	NOUN	C	WARR.	TP	PAD

GROUP Enter number G— _____

NOUN Leave blank _____

C (CAUSE) Enter either 1, 2, 3. (see below)

- 1. Inspected (No repair required).
- 2. Inspected and repaired.
- 3. Defective part from parts stock.

WARRANTY (Warranty Code) Enter 40. _____

TYPE PART Enter P for type part causing failure. _____

PAD Enter 100 _____

Distribution: All except J-81

Reproduction: Not required.

Figure 12