

**VOLVO D13 ENGINE HARNESS REPLACEMENT •
OIL SEEPAGE AT UNIT INJECTOR PASS-THROUGH FITTING
9700 (B13R)**

MODEL YEAR(S) AND VEHICLE SERIAL NUMBERS (VIN) INVOLVED

VIN		
2009	2009	2010 (US07 VERSION)
3CET2M6239513 <u>1527</u>	3CET2M6279513 <u>3295</u>	3CET2M626A513 <u>5799</u>
3CET2M6249513 <u>2072</u>	3CET2M6299513 <u>3296</u>	3CET2M629A513 <u>5800</u>
3CET2M6269513 <u>2073</u>	3CET2M6229513 <u>3513</u>	3CET2M620A513 <u>5801</u>
3CET2M6289513 <u>2074</u>	3CET2M6249513 <u>3514</u>	3CET2M622A513 <u>5802</u>
3CET2M62X9513 <u>2075</u>	3CET2M6269513 <u>3515</u>	3CET2M624A513 <u>5803</u>
3CET2M6219513 <u>2076</u>	3CET2M6289513 <u>3516</u>	3CET2M626A513 <u>5804</u>
3CET2M6239513 <u>2077</u>	3CET2M62X9513 <u>3517</u>	3CET2M628A513 <u>5805</u>
3CET2M6279513 <u>2857</u>	3CET2M6219513 <u>3518</u>	3CET2S220A513 <u>5856</u>
3CET2M6299513 <u>2858</u>	3CET2M6279513 <u>3880</u>	3CET2M62XA513 <u>6017</u>
3CET2M6209513 <u>2859</u>	3CET2M6299513 <u>3881</u>	3CET2M621A513 <u>6018</u>
3CET2M6279513 <u>2860</u>	3CET2M6209513 <u>3882</u>	3CET2M623A513 <u>6019</u>
3CET2M6299513 <u>2861</u>	3CET2M6229513 <u>3883</u>	3CET2M62XA513 <u>6020</u>
3CET2M6209513 <u>2862</u>	3CET2M6249513 <u>3884</u>	3CET2M621A513 <u>6021</u>
3CET2M6229513 <u>2863</u>	3CET2M6269513 <u>3885</u>	3CET2M62XA513 <u>6129</u>
3CET2M6249513 <u>3173</u>	3CET2M6229513 <u>3964</u>	3CET2M626A513 <u>6130</u>
3CET2M6269513 <u>3174</u>	3CET2M6249513 <u>3965</u>	3CET2M628A513 <u>6131</u>
3CET2M6289513 <u>3175</u>	3CET2M6269513 <u>4115</u>	3CET2M625A513 <u>6376</u>
3CET2M62X9513 <u>3176</u>	3CET2M6279512 <u>7142</u>	3CET2M627A513 <u>6377</u>
3CET2M6289513 <u>3287</u>	3CET2M6299512 <u>7143</u>	3CET2M629A513 <u>6378</u>
3CET2M62X9513 <u>3288</u>	3CET2M6209512 <u>7144</u>	3CET2M620A513 <u>6379</u>
3CET2M6219513 <u>3289</u>	3CET2M6209512 <u>7371</u>	3CET2M627A513 <u>6380</u>
3CET2M6289513 <u>3290</u>	3CET2M6229512 <u>7372</u>	3CET2M624A513 <u>6384</u>
3CET2M62X9513 <u>3291</u>	3CET2M6249512 <u>7521</u>	3CET2M62XA513 <u>6390</u>
3CET2M6219513 <u>3292</u>	3CET2M6299512 <u>9166</u>	3CET2M621A513 <u>6391</u>
3CET2M6239513 <u>3293</u>	3CET2M6209512 <u>9167</u>	3CET2M623A513 <u>6392</u>
3CET2M6259513 <u>3294</u>		3CET2M625A513 <u>6393</u>
		3CET2M627A513 <u>6394</u>
		3CET2M629A513 <u>6395</u>
		3CET2M620A513 <u>6396</u>
		3CET2M622A513 <u>6397</u>
		3CET2M624A513 <u>6398</u>
		3CET2M626A513 <u>6399</u>
		3CET2M629A513 <u>6400</u>

DESCRIPTION

On the vehicles affected by this bulletin, oil seepage at the unit injector harness pass-through fitting is likely to happen. Replacement of the engine harness may be performed if the corrective measure previously described in warranty bulletin WB10-58 consisting in sealing the fitting with two-part epoxy adhesive has proven to be ineffective and there is clear evidence that oil is still leaking at the pass-through fitting.

You must make an appointment at one of Prevest Service Centers or Prevest Certified Service Providers. Refer to **Parts and Service** tab on Prevest web site or go to www.prevestcar.com/network for the list of the nearest Prevest Service Center or Prevest Certified Service Providers.

Prevest Action Service System (PASS) 1 800 463-7738

MATERIAL

Part No	Description	Qty
983472	Cable tie, high temperature	6
21400265	Engine harness (Volvo 9700 US07 version)	1

NOTE

Material can be obtained through regular channels.

PROCEDURE



DANGER

Park vehicle safely, apply parking brake, stop engine. In the battery box, set the battery cut-off switch to the OFF position prior to working on the vehicle.

NOTE

When performing removal of the existing engine harness, disconnect the exterior connectors first and finish with the connectors located under the valve cover in order to avoid prolonged period of time with cylinder head unprotected from dirt or foreign matter.

1. One after the other, unplug the engine harness connectors, starting with the connectors found outside of the engine block.
2. When necessary, clean the area around the connector to protect connector from dust and foreign matter.
3. If necessary, identify each connecting points around the engine to ease installation of the replacement harness.

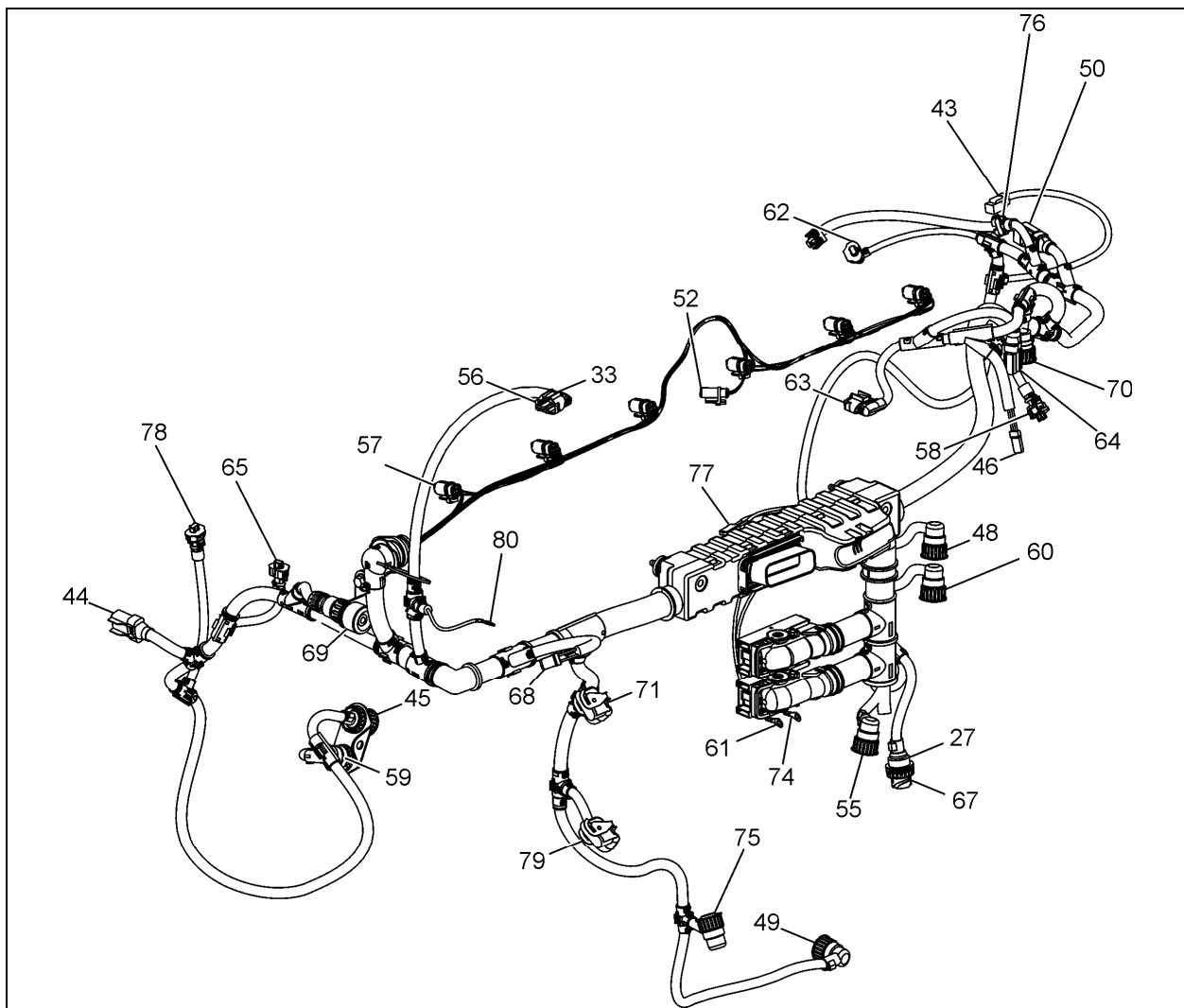


FIGURE 1: ENGINE HARNESS #21400265

- | | | | |
|----|---------------------------------------|----|--------------------------------------|
| 43 | engine cool solenoid valve | 62 | engine speed cam shaft sensor |
| 44 | EGR differential pressure sensor | 63 | boost temperature & pressure sensor |
| 45 | turbo speed sensor | 64 | 7th injector |
| 46 | fire warning sensor #3 | 65 | EGR temperature sensor |
| 48 | engine oil pressure sensor | 68 | fire warning sensor #1 |
| 49 | engine oil level & temperature sensor | 69 | engine connector |
| 50 | fuel system safety valve | 70 | aftertreatment sensor |
| 52 | Volvo Engine Brake solenoid valve | 71 | alternator |
| 56 | boost temperature & pressure sensor | 75 | EPG solenoid valve unit |
| 57 | unit injector | 76 | EGR solenoid valve |
| 58 | engine speed crank shaft sensor | 77 | fire warning sensor #2 |
| 59 | VGT | 78 | coolant temperature sensor |
| 60 | pressure crankhouse | 79 | inverter |
| 61 | ring terminal | 80 | ring terminal – intake air preheater |

UNDER THE VALVE COVER – UNIT INJECTOR HARNESS BRANCH

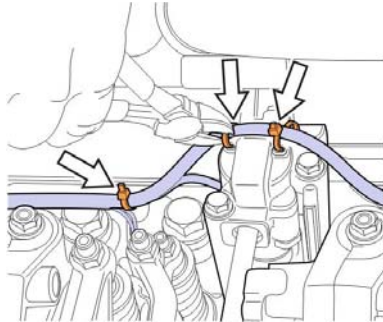


FIG.2

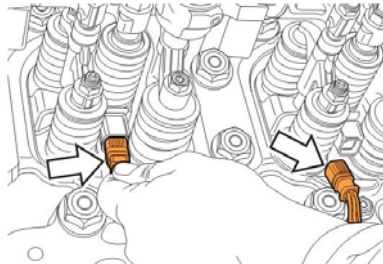


FIG.3

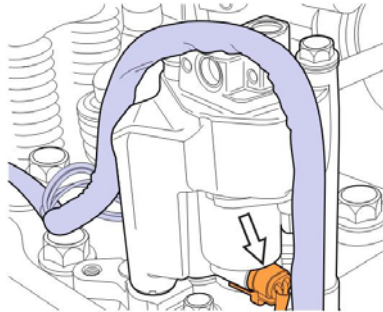


FIG.4

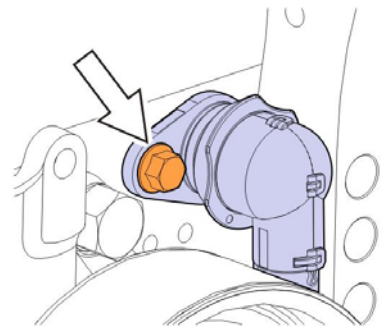


FIG.5

1. Remove the valve cover. See IMPACT function group 21 for details.
2. Cut cable ties securing unit injector harness to the engine brake control valve and cylinder head.
3. Disconnect unit injector harness connectors from unit injectors.
4. Disconnect harness connector from engine brake control valve.
5. Remove cap screw securing the pass-through fitting to the cylinder head.
6. Remove existing unit injector harness.
7. Reinstall the unit injector harness through the opening of the cylinder head and route the connectors to each of the unit injectors and engine brake control valve.
8. Insert the harness pass-through fitting into opening in the cylinder head. Tighten the cap screw to 24 Nm (18ft-lb).
9. Route the harness over the top of the engine brake control valve as shown in the figure 6. Reconnect the harness connectors to the brake control valve. Push the connector until a distinct “click” is heard to ensure the connector is fully engaged.

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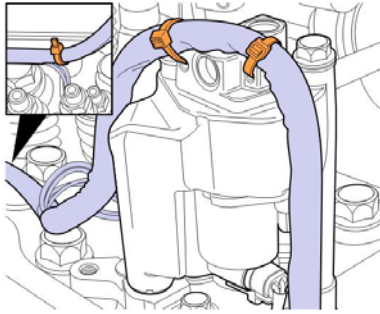


FIG.6

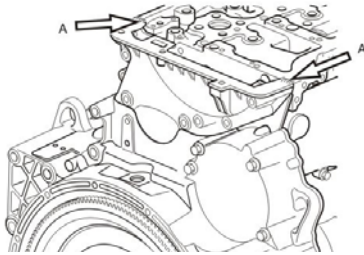


FIG.7

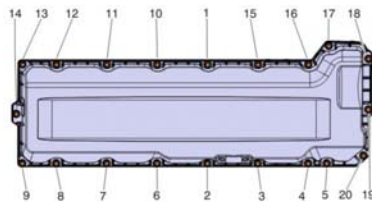


FIG.8

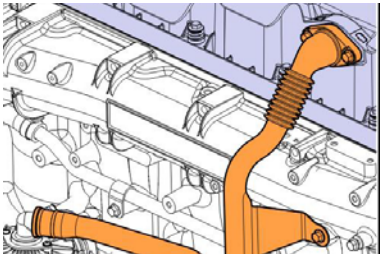


FIG.9

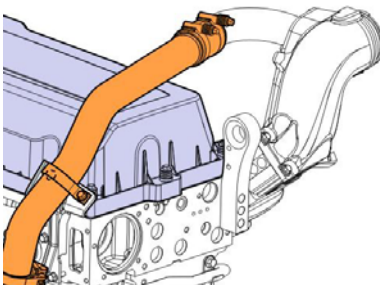


FIG.10

10. Reconnect the harness connectors to the unit injector terminals. Push the connector until a distinct “click” is heard to ensure the connector is fully engaged (fig.3).

11. Use high temperature cable ties (part number 983472) to secure the harness to the eyelets on the engine brake control valve and cylinder head.

Note: It is extremely important that the head of the cable ties face downward to prevent contact with the valve cover.

12. Install engine valve cover assembly. See IMPACT Function Group 21.

13. Clean the gasket sealing surface of the cylinder head. The surfaces should be clear of any dirt or debris and free of any oil.

Note: Remove any sealant from the joint between the cylinder head and upper timing gear cover.

14. Apply a 2 mm (0.079 in) bead of sealant at the joint of the timing cover and the cylinder head on both sides.

Note: The valve cover must be installed within 20 minutes of the application of the sealant.

15. Carefully position the valve cover on the cylinder head and ensure that the seal remains properly seated.

16. Install the spring-loaded bolts in the valve cover. Torque-tighten the valve cover bolts to 24 ± 4 Nm (18 ± 3 ft-lb) in the sequence shown.

17. Install the fasteners securing crankcase ventilation tube and bracket to valve cover and intake manifold. Torque-tighten fasteners to 24 ± 4 Nm (18 ± 3 ft-lb).

18. Position the EGR crossover pipe between the venturi outlet pipe and the mixer inlet pipe.

19. Make sure the O-rings are in place and install clamps at both ends of the crossover pipe. Tighten the clamps to specification.

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PARTS / WASTE DISPOSAL

- Discard waste according to applicable environmental regulations (Municipal/State[Prov.]/ Federal).

WARRANTY

This modification is covered by Prevest's normal warranty and will be performed at no charge.

The working time required to perform this warranty bulletin is approximately 10 hours. As a matter of normal service process, your Prevest Service Center or Prevest Certified Service Providers will also check for other repair measures which might be applicable to your vehicle and this may increase the required working time.

Please contact your Prevest Service Center or your Prevest Certified Service Providers for additional information and to schedule an appointment at your earliest convenience. Please mention WB11-59.

OTHER

Fail Code	01-00-2
Defect Code	23
System Condition	B
Causal Part	21344528

TELL US WHAT YOU THINK!

We are interested in hearing your comments or suggestions regarding this bulletin.
Please e-mail them to: TechnicalPublications@volvo.com

Prevest engages in a continuous program of testing and evaluating to provide the best possible product. Volvo Bus, however, is not committed to, or liable for updating existing products.