



Technical Tip

Topic	01-15-03TT – DTC P0171 and P2177 – Gasoline Engines Only
Market area	United States 444 Volkswagen of America, Inc. (6444)
Brand	Volkswagen
Date	August 18, 2017

Condition

ATTENTION:

**THIS IS A TECH TIP, NOT A TECHNICAL BULLETIN AS TITLED.
TECH TIPS ARE NOT ASSOCIATED WITH WARRANTY CLAIMING.**

DTC P0171 and P2177– Gasoline Engines Only

Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To
All	2009-2018	All (Gasoline Engines)	All	All	All

Technical Background

When Diagnosing DTCs P0171 or P2177, monitor MVB 32, field 2 (long term fuel trims).

If fuel trims read 15-20%, excessive ethanol is suspect.

DTC	Description
P0171	Fuel Trim Bank 1, System Too Lean
P2177	System Too Lean Off Idle Bank 1

Service

**WARNING:**

Review all repair manual cautions and warnings regarding fuel handling.

Take a fuel sample and check alcohol content.

- 1) In a clear graduated container, mix a 50/50 solution of gasoline from the car and water.
- 2) Shake the container for 30 seconds and allow the solution to settle.
- 3) If the solution settles to a 30/70 (gas/water) mixture and not a 50/50 mixture (see figures 1 and 2), the fuel quality is in question.
- 4) Check the water portion in the solution for clarity. If the water (bottom) portion is foggy, the fuel quality is in question for alcohol contamination (see figures 1 and 2).

If excessive ethanol is found, it will be necessary to remove the existing fuel in the tank and replace the fuel using a Top Tier gasoline retailer in your area. Note that on saddle style tanks, fuel on both sides of the fuel tank must be removed. Removing the rear seat will provide access to both the passenger and driver side.

Note:

If the root cause of the concern is determined to be fuel related, the repair and diagnosis will not be covered under warranty.



Figure 1

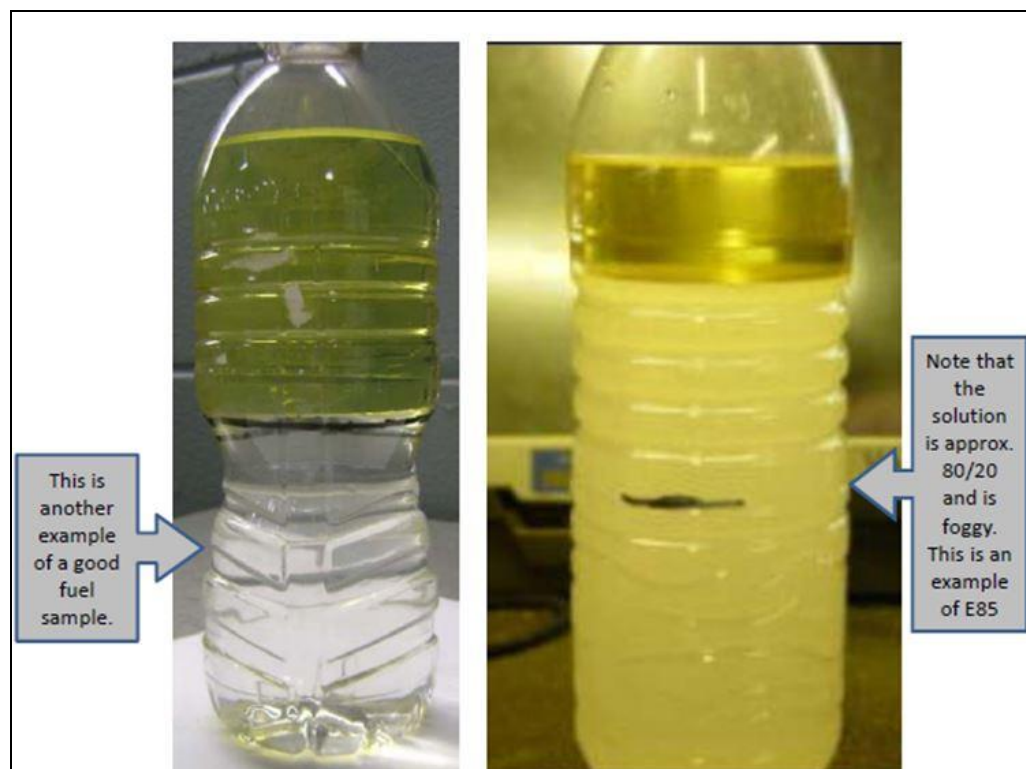


Figure 2



Additional Information

Revision History		
Revision Number	Released Date	Reason For Update
2041646/3	8/18/17	Update to expand fuel testing for lean DTCs.
2041646/2	6/22/17	Update to latest standard.
2041646/1	8/7/15	Original publication.

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