

Ferrari

Service Bulletin

SB 10-5
10-1-81



SUBJECT: ENGINE OIL CONSUMPTION
VEHICLES: ALL 308 MODELS

SERVICE
INFORMATION:

Attached is the only Factory approved test procedure to be used to determine if an excessive amount of engine oil is being consumed.

NOTE: Vehicles to be tested for oil consumption must have been driven for at least 3000 miles.

READ, INITIAL and PASS ON

SERVICE MANAGER	PARTS MANAGER	SERVICE WRITER	TECHNICAN				

ENGINE OIL CONSUMPTION TEST

IMPORTANT: Test vehicle must have been driven for a minimum of 3000 miles.

Test

1. Vehicle must be on level ground.
2. Inspect engine for possible external oil leaks. If necessary, eliminate leaks.
3. Make sure air cleaner element is dirt-free and properly seated within air cleaner. If necessary, replace element.
4. Engine must be at normal operating temperature.
5. 15 minutes after engine is turned off, check engine oil level on the dipstick.
6. Inspect oil return tube and connectors between crankcase vapor liquid-separator and sump for blockage. If necessary, repair blockage.
7. With the engine oil at a minimum temperature of 195°F, drain oil from sump and replace with oil filter. Inspect drained oil for contaminants, i.e., gasoline, etc.
8. Add 7.5 quarts of Valvoline SAE 20W-50 API-SF oil into engine.
NOTE: Only Valvoline 20W-50 oil must be used to insure uniform test results.
9. Start and run engine until the oil temperature reaches at least 230°F.
10. After turning engine off and removing both the dipstick and oil filler cap, drain engine oil into a clean pan. Let oil drain from sump for 1.5 hours (time starts from engine shut off).
11. Weigh drained oil plus pan. Record combined weight. Pour oil back into engine. Weigh the empty drain pan.
12. Subtract the drain pan weight from the combined weight total obtained in step 11. The remaining amount is the weight of the oil poured into the engine.

IMPORTANT: The weight of the oil must be between 13 lbs 11 oz to 14 lbs (6.2 to 6.3 Kg).
13. If necessary, repeat steps 11 and 12 with an additional amount of oil until the above mentioned weight of oil has been added to the engine.
14. Record total weight of oil added to engine (W_i) in pounds and ounces. Also record test date and vehicle mileage.

15. Repeat step 5 to ensure oil is near maximum level.
16. Return vehicle to owner. Have owner drive the vehicle in a normal fashion for approximately 500 to 600 miles.
IMPORTANT: Inform the owner that he/she must not add any oil to the engine. If necessary, the vehicle must be returned to dealership for topping up engine oil level. Any oil added to the engine must be accurately recorded.
17. After the above mentioned mileage has been accumulated, the vehicle must be returned to the dealership to weigh the residual oil in the engine.
 Perform the following to accurately weigh oil:
- Weigh a clean drain pan before draining oil from engine.
 Record pan weight.
 - Repeat steps 9 and 10.
 - Weigh the drained oil plus pan.
 - Subtract weight of drain pan from the combined weight total.
 The remaining amount is the weight of the residual oil (Wr).
- The difference between the weight of Valvoline oil (Wi) recorded in step 14 and the residual oil (Wr) is the oil consumed (Wc).
 Example: $W_i - W_r = W_c$
18. To calculate the oil consumed (Wc) from ounces to miles per quart, perform the following:
1. Multiply the test miles driven by 34 weight ounces per quart.
 2. Divide the resulting figure from step 1 by the oil consumed (Wc) in weight ounces.
 3. The remaining figure from step 2 is the oil consumption rate miles per quart.

$$\text{Oil Consumption Rate (miles/qt.)} = \frac{\text{Test miles driven} \times 34 \text{ weight oz./qt.}}{\text{Oil Consumed (W.oz.)}}$$