

# **Service Bulletin**

# INFORMATION

#### Subject: Information On Engine Oil Consumption Guidelines

#### This Bulletin replaces PIP5751. Please discard PIP5751.

Brand:	Model:	Model Year:		VIN:		Engine	Transmission:
		from	to	from	to	Engine:	
Cadillac	Escalade Models	2021	2022	-	-	Equipped with 3.0L (RPO LM2)	
Chevrolet	Silverado 1500	2020					-
	Suburban	2021					
	Tahoe						
GMC	Sierra 1500	2020					
	Yukon Models	2021					

Involved Region or Country North America

#### Information on Engine Oil Consumption Guidelines for the 3.0L Duramax Diesel Engine

All engines require oil to lubricate and protect the load bearing and internal moving parts from wear including cylinder walls, pistons and piston rings. When a piston moves down its cylinder, a thin film of oil is left on the cylinder wall. During the combustion process, part of this oil layer is consumed. As a result, varying rates of oil consumption are accepted as normal in all engines.

### **Oil Consumption**

The accepted rate of oil consumption for engines used in the vehicles referenced is 0.946 liter (1 qt) in 3200 km (2000 mi).

**Important:** This rate only applies to personal use vehicles, under warranty, that are driven in a non-aggressive manner and maintained in accordance with the appropriate maintenance schedule or driven at legal speeds in an unloaded (for trucks) condition.

**Important:** This rate **does not apply** to vehicles that are driven in an aggressive manner, at high RPM, high speeds, or in a loaded condition (for trucks). Oil consumption for vehicles driven under these conditions will be more and accepted rate is 0.946 liter (1qt) in 1600 km (1000mi).

Many factors can affect a customer's concern with oil consumption. Driving habits and vehicle maintenance vary from owner to owner. Thoroughly evaluate each case before deciding whether the vehicle in question has abnormal engine oil consumption.

### **Gasket and External Leaks**

Inspect the oil pans, engine covers, and the engine oil cooler for leakage. Inspect the turbocharger oil lines and fittings for signs of leakage. Inspect the turbocharger outlet pipe for signs of oil, indicating worn turbocharger shaft bushings or seals. Inspect for oil leakage into the engine coolant.

#### Improper Reading of the Oil Level Indicator (Dipstick)

The vehicle must be parked on a level surface to obtain accurate oil level readings. Verify that the dipstick tube is fully seated in the block. When checking the oil level, make sure the dipstick is wiped clean before taking an oil level reading and fully depress the dipstick until the shoulder bottoms out on the dipstick tube. The dipstick should be the proper part number for the engine/vehicle that is being checked.

### Not Waiting Long Enough After Running Engine to Check Oil Level

The vehicle should be allowed to sit for at least 15 minutes, after the engine has been shut off, before taking an oil level reading to assure the oil has had enough time to drain back into the crankcase. In order to ensure accurate results, the temperature of the oil should be close to the same temperature as the last time the oil level was checked.

# Improper Oil Fill After an Oil Change

Following an oil change, verify that the proper amount and type of oil was put in the engine and that the oil level on the dipstick is not above the full mark or below the add marks. Refer to the Owner's Manual or Service Manual for information on recommended oil quantity, viscosity, and quality.

### Aggressive Driving, High Speed/High RPM or Towing/Heavy Usage

Aggressive driving and/or continuous driving at high speed/high RPM and/or Towing/Heavy usage will increase oil consumption. Vehicles that are driven under these conditions may consume engine oil at a rate up to 0.946 liter (1 quart) every 1600km (1000miles). This is normal and no repair is required. This characteristic does, however, requires the owner to check the engine oil level at a sufficiently frequent intervals, to assure the oil level remains within the recommended operating range.

# **Crankcase Ventilation System**

Verify that the positive crankcase ventilation (PCV) system is operating properly. Blockages, restrictions or damage to the PCV system can result in increased oil use.

# **Oil Dilution from Condensation**

On vehicles that are usually driven short distances, less than 8 km (5 mi), especially in colder weather, condensation generated from cold engine operation may not get hot enough to evaporate out of the oil. When this occurs, the dipstick may indicate that the oil level is over-full. Subsequent driving on a trip of sufficient length to enable normal engine operating temperature for 30 minutes or more, in order to vaporize excess moisture, may give the customer the impression of excessive oil consumption.

# **Engine Temperature**

If an engine is run at overheated temperatures (see Owner's Manual or Service Manual) for more than brief periods, oil will oxidize at a faster than normal rate. In addition, gaskets may distort, piston rings may stick, and excessive wear may result. Verify that all cooling system components are in proper working order.

# **Engine Wear**

Piston scuffing, excessive piston-to-wall clearance, tapered or out of round cylinders, worn, damaged or improperly installed valve guides, seals and piston rings will all cause an increase in oil consumption.

#### **Measurement of Oil Consumption**

Engines require a period of time to BREAK IN so that moving parts are properly seated. Therefore, oil economy should not be tested until the vehicle has accumulated at least 8000 km (5000 mi) and the oil has been changed for the first time. An exception would be allowed only if an engine is reported to be using more than 0.946 liter (1qt) in 1600 km (1000mi).

Verify that the engine has no external leaks. Repair as necessary.

- Begin oil consumption test after next regularly scheduled oil and filter change. It is critical to make sure that the new oil filter is tightened 1 to 1-1/4 turn after contact. Refer to *Engine Oil and Oil Filter Replacement* in SI. Oil changes should not be performed during the test.
- 2. Verify that the engine is at normal operating temperature (see Owner's Manual or Service Manual).
- 3. Park the vehicle on a level surface.
- 4. Wait at least 15 minutes, after the engine is shut off, before checking the oil level to make sure that most of the oil has had time to drain back into the crankcase.
- 5. Verify that the oil level is at, but not above, the full mark on the dipstick and that the proper viscosity and quality oil are being used as recommended in the Owner's Manual.
- 6. Dealer should record the vehicle mileage, date and engine hours at the start of the test on the form included in this bulletin.
- 7. Ask the customer to verify and record the date, odometer, oil level, fuel added, engine hours, percentage of driving done in aggressive manner or at high speed/high RPM or with a trailer and trailer weight, each time the vehicle is fueled, following steps 3-5 and return the vehicle to the dealership if the oil level is found at or below the add mark, 0.946 liter (1 qt) low, if possible. The dealer will add oil to return the oil level to full. If the oil level remains above the add mark, the customer should continue to operate the vehicle and verify the engine oil level until either the oil level drops to or below the add mark or at least 4800 km (3000 mi) has accumulated since the test began before returning to the dealership for a final evaluation.
- 8. Refer to Oil Consumption section to compare the final evaluation to the proper acceptable oil consumption. Explain to the customer that their engine meets the guidelines for oil consumption if it falls into the acceptable range.

# **Oil Consumption Worksheet**

Owner Name	Location	
Dealer Name	Dealer Code	
Assign TAC	TAC Case #	
Engine Model	Serial #	
VIN	Oil Brand	
Oil Viscosity	Fuel Brand	

-	Date	Odometer Reading	Engine Hours	Fuel Quantity Added	Oil Quantity Added
Start					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
Total					

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GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, <u>DO NOT</u> assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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