| General Service Bulletin (GSB): | HEV/PHEV Engine information |
|---------------------------------|---|
| GSB Overview: | Service information for Cold Climates and Short Drive Cycles. |

NOTE: This information is not intended to replace or supersede any warranty, parts and service policy, Work Shop Manual (WSM) procedures or technical training or wiring diagram information.

Overview:

- Some gasoline engines may experience a buildup of moisture in the engine oil if repeatedly operated in cold weather combined with short driving cycles that do not fully warm the engine.
- The thick milky substance under the oil cap indicates moisture/condensation is present.
- This condition can be more prevalent in gas electric hybrid vehicles that run the gas engine for very short driving cycles.



Operating in Cold Climates and Short Drive Cycles:

- When a thick milky substance is under the oil cap, this indicates moisture is present. It is recommended to have frequent oil changes and filter changes.
- Follow severe duty cycle in the maintenance guide. Following this
 procedure will help remove the moisture contaminated oil from the
 engine.
- To prevent engine damage under these conditions customers should be advised to follow these steps:
 - Drive your vehicle at full engine temperature for 15 to 30 minutes.
 - Drive your vehicle at highway speeds.
 - Drive your vehicle with the defroster (hybrid vehicles) at full.



