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**TB 722**

**Coolant in the Oil on Toyota 20R & 22R Engines**

AERA members have reported instances of engine coolant mixing with the engine lubricating oil supply.

In some of these cases, pressure testing the cylinder block and head has not identified the source of the leak. However, close inspection of the aluminum front cover revealed an area where the timing chain wore through into a water passage. In this engine the water pump is mounted to the front cover. When the timing chain stretches and the automatic tensioner is no longer able to take up the slack, the loose chain can slap against the front cover. Continuous contact will eventually wear a hole into the front cover, introducing engine coolant into the crankcase.

The AERA Technical Committee