



Cylinder Head Bolt & Block Caution for 2002-2011 Toyota 2.4L 2AZFE Engines

AERA Technical Committee offers the following information regarding a cylinder head bolt and block caution on 2002-2011 Toyota 2.4L, 2AZFE engines. Previously, AERA published TB2433 concerning striped head bolt threads and coolant loss on these engines. The most common locations have been noted at the rear of the engine.

It has since been reported that the frequency of striped head bolt threads has decreased on later year blocks as noted during tear down. Toyota made manufacturing changes to blocks during the 2006 year to reduce the likelihood of the bolts losing their clamping load. Depending on the application the dates vary but all 2008-year model engines have the revised block and head bolts.

Original Design Blocks

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2002 – 2006	Camry	Engine(s): 2AZ Transmission(s): 4AT, 5MT, 5AT VDS(s): BE30K, BE32K WMI(s): 4T1, JTD
2001 – 2007	Highlander	Engine(s): 2AZ Transmission(s): 4AT, 5AT VDS(s): DD21A, GD21A, HD21A WMI(s): JTE
2004 – 2005	RAV4	Engine(s): 2AZ Transmission(s): 5MT, 4AT VDS(s): GD20V, HD20V WMI(s): JTE
2002 – 2006	Solara	Engine(s): 2AZ Transmission(s): 4AT, 5MT, 5AT VDS(s): CE22P, CE28P, CE30P, CE38P, FE22P, FE28P WMI(s): 4T1

Toyota enhanced the threaded area of the block and moved that bolt contact area closer to the top of the block. Original blocks had the head bolt threads starting about 3" below the block deck and newer blocks have the bolt threads starting about 1" below the deck. The newer head bolts are also shorter by approximately .750" (19.000 MM).