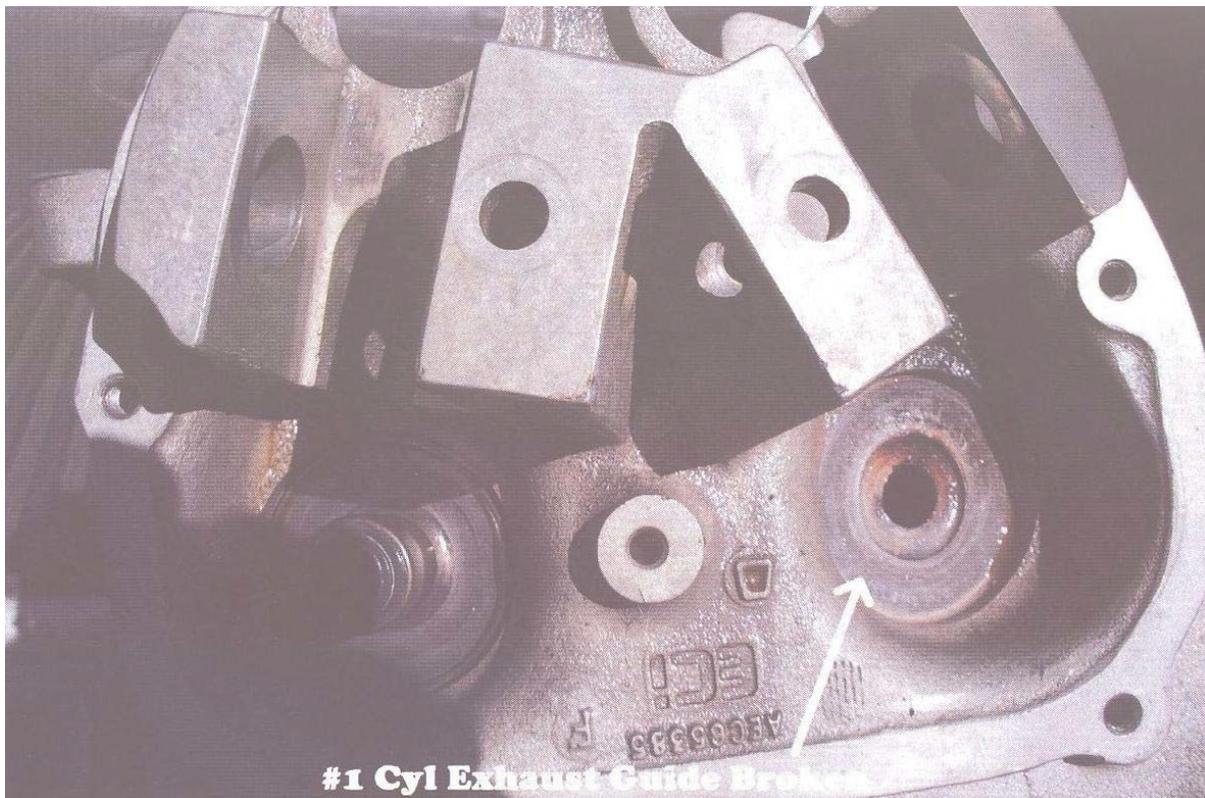


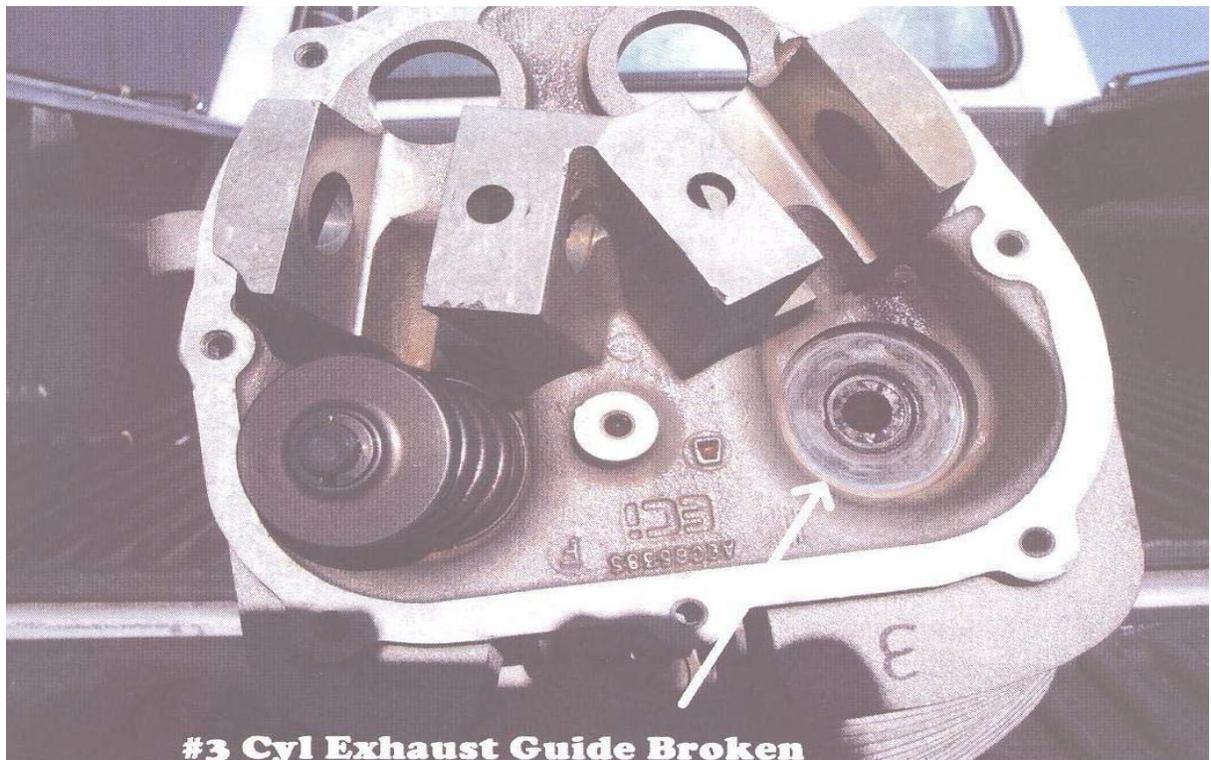
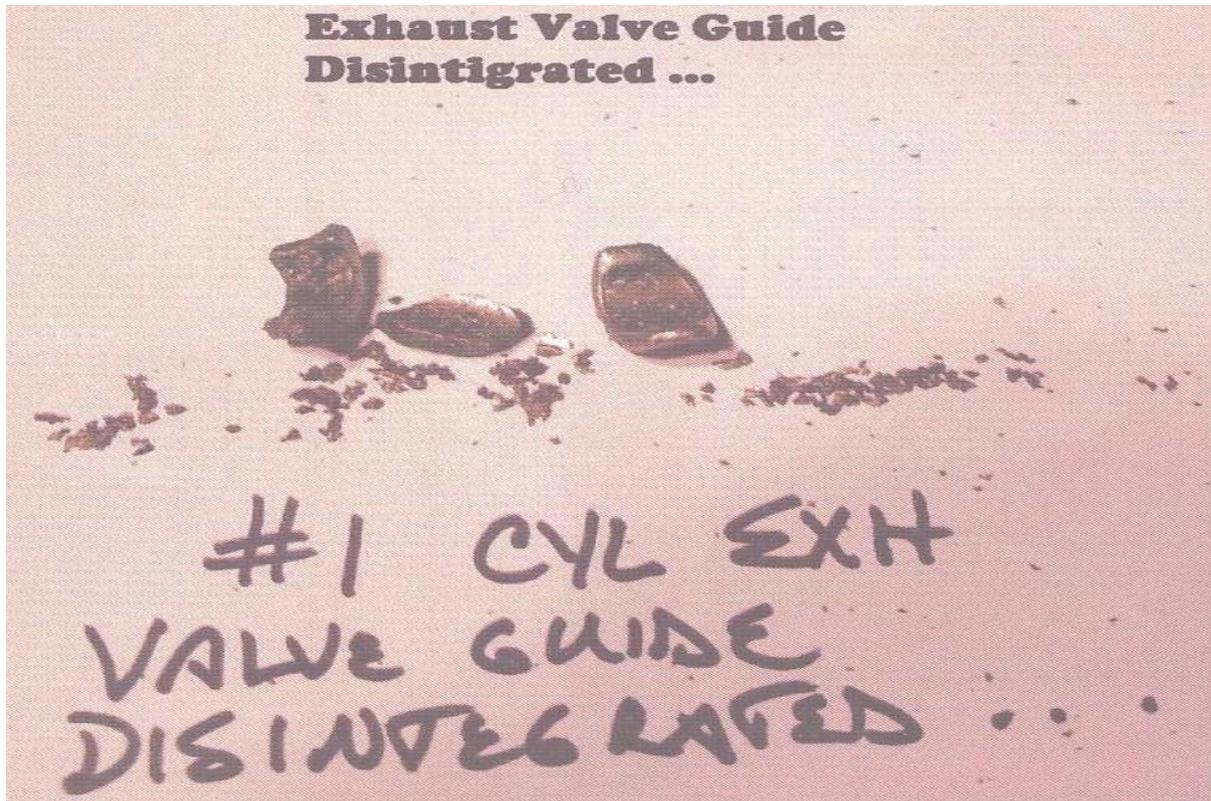
## ECI Cylinders TISN712BCA, Failed Valve Guides, ATA 8530

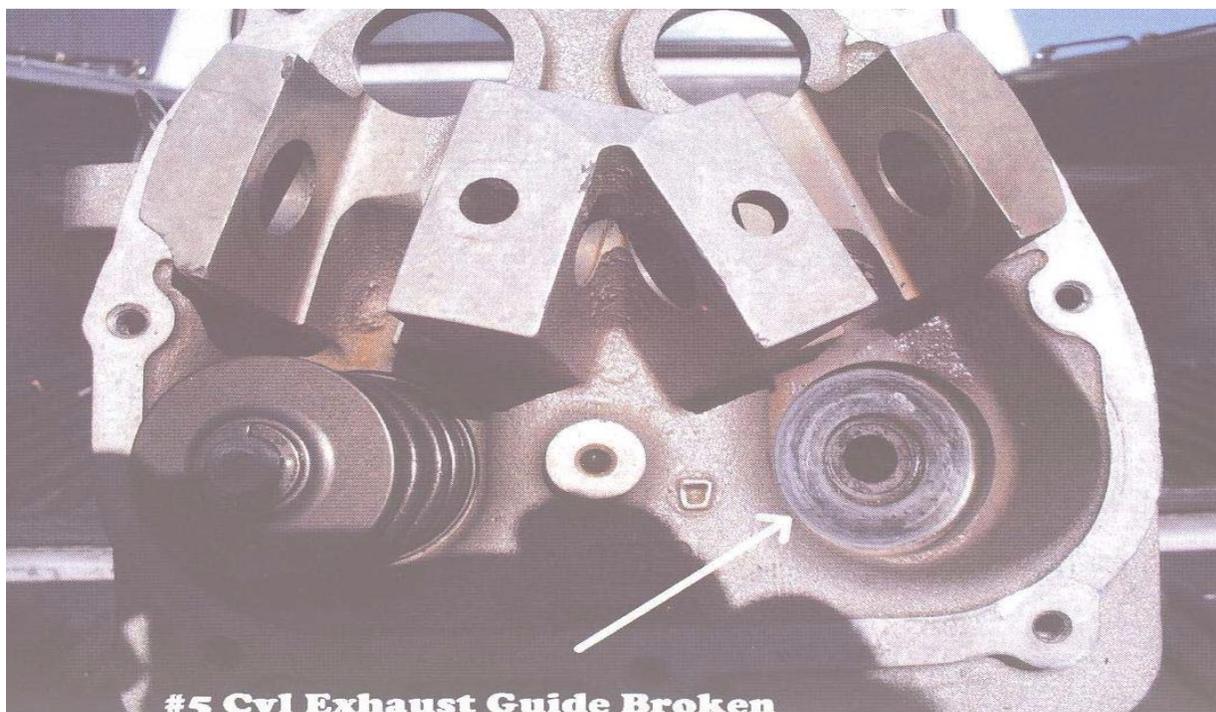
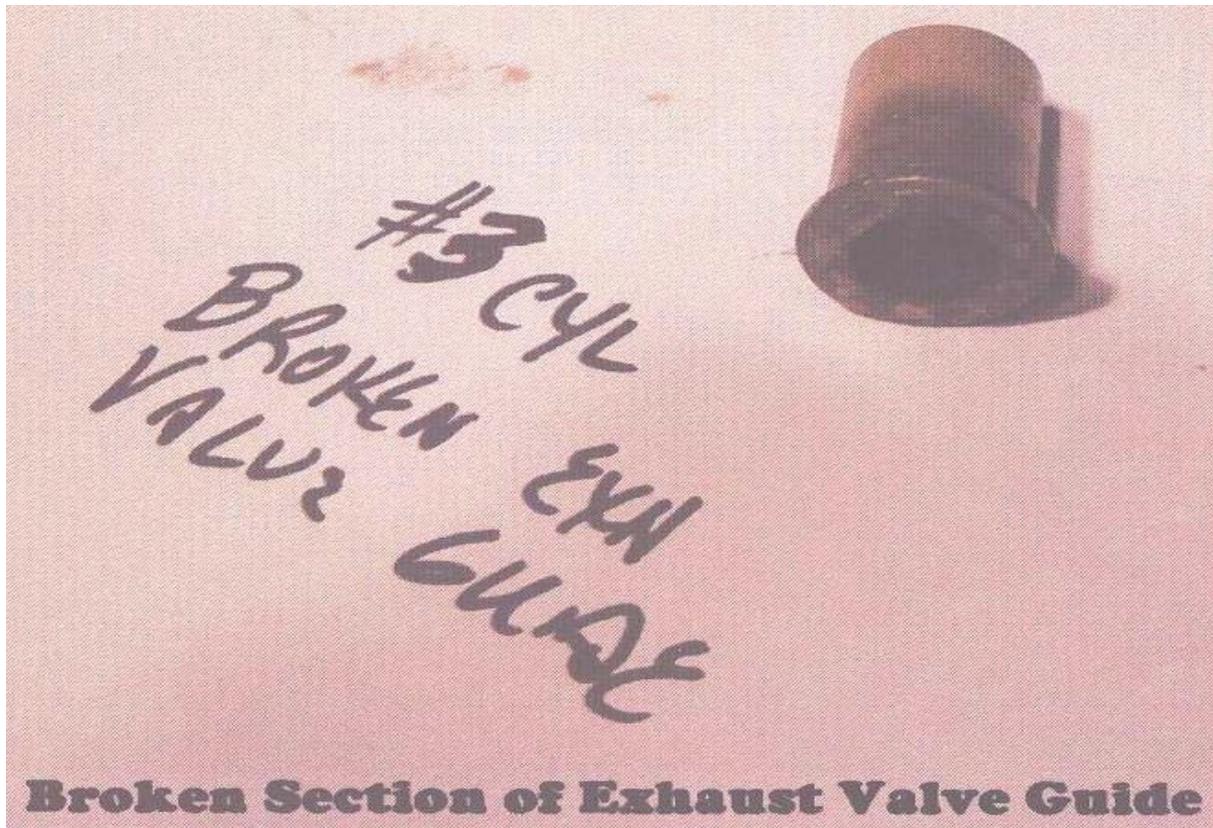
This general aviation report states, "Six new Engine Components, Inc. (ECI) cylinders were installed at 2,812-hours total time. The ECI cylinders experienced a failure of the valve guides on three of the six cylinders at 384-hours of time in service. All three failed valve guides broke off at the insert point (see photos), and one completely disintegrated—contaminating the engine with metal debris. This debris caused chafing on at least two valve lifter assemblies, and damage to the camshaft. The engine will require a complete tear down because of the metal contamination and damage.

"The only initial, abnormal indication noted from the broken exhaust valve guides was excessive engine oil blowing through the engine crankcase breather. This was noted by a significant amount of oil on the belly of the aircraft. The engine operated normally with no apparent power loss or abnormal indications of EGT, TIT, or oil pressure/temperature. Eventually turbine operation became erratic, caused by momentary blockage within the turbine waste-gate controller. This condition was intermittent. Flaws were found by visual inspection after low compression was found on two of the effected cylinders...."

(The following photos suffer significant vertical distortion by this editor. Nine of these cylinder P/N's are found in the SDRS database. Individual part numbers were not provided with this report.)







**Damage to Valve Lifters  
Due to metal contamination  
(Camshaft Damage also)**

