

T-315 SATURN VUE CAM DRIVE CHAIN FAILURES

14July'01 Incident, PIMREP # L-0705-80095

- Cam drive chain broke, Vehicle # 31BG2002, Odo. 15,052
- Tear-down analysis completed at 12Mile Bldg., MH
- All cam drive components analyzed by the cam drive system supplier (in France)
 - All components exhibit normal wear condition for the duty cycle
 - Chain shows evidence of hard contact with foreign material
 - No foreign material found during the tear down, engine oil was drained and disposed prior to engine received at MH
- Root Cause: Chain failure due to overload caused by foreign material

27Aug'01 Incident, PIMREP # -----

- Cam drive chain broke, Vehicle # 8X9444D, on Labeeco, R-15-104 Schedule, Odo. 35,990
- Tear-down analysis completed at 12Mile Bldg., MH
- All cam drive components analyzed by the cam drive system supplier (in France)
 - All components exhibit significant wear
 - Evidence of contaminated and burned oil deposits on components (over heat condition)
 - Vehicle log shows extended oil drain intervals as high as 17,122 miles
- Root Cause: Excessive chain wear and elongation caused by contaminated oil & lack of lubrication

Next Steps

- Revisit design robustness for lubrication of the chain
- Re-baseline EOT condition for the components after successful validation tests
- Consider release of upgraded S-pin chain released for DIG & Turbo L850 applications
- Start development and validation testing of the S-pin chain with potential of release for MPFI-L80