

Obs	effective_date	info_letter_number	event
1	19990210		SEQUENCE IVA TEST LTMS ESTABLISHED BY SURVEILLANCE PANEL
2	19990520		CALIBRATION OF TEST STANDS SUSPENDED, PENDING RESOLUTION OF WEAR PROBLEM
3	19991117		CALIBRATION STATUS RESUMED
4	20000216	00-1	DRAFT 4 OF TEST PROCEDURE ISSUED. INCORPORATED JACKETED ROCKER COVER, CONTROLLED FLOW OF FRESH AIR TO ROCKER COVER, AND OIL CYLINDER HEAD AS OIL TEMPERATURE CONTROL POINT.
5	20000319		Industry ACW control chart exceeded EWMA Precision Warning
6	20000430		Industry ACW control chart returned within EWMA Precision limit. Alarm caused by single test which failed (-5.11 Yi).
7	20000523		Industry ACW control chart exceeded EWMA Precision Warning
8	20000523		Industry ACW control chart exceeded EWMA Severity Warning
9	20000612	00-3	REVISED DOUBLE-FLUSH COOLANT CONTROL REQUIREMENTS EFFECTIVE
10	20000612	00-3	REVISED ENGINE STARTING PROCEDURE EFFECTIVE
11	20000612	00-3	ELIMINATE THE REQUIREMENT FOR LINEAR RAMPING OF TRANSIENT PARAMETERS
12	20000612	00-3	REVISED OIL SAMPLING PROCEDURE
13	20000612	00-3	REVISED DOUBLE-FLUSH OIL DRAIN REQUIREMENT
14	20000612	00-3	REVISED COMPRESSION TEST REQUIREMENTS
15	20000612	00-3	NEW CAMSHAFT CLEANING REQUIREMENTS
16	20000703		Industry ACW control chart returned within EWMA Severity limit. Alarm caused by two failing tests (-7.96, -2.59 Yi) on same stand which caused previous Precision Alarm. Lab recalibrated as new lab.
17	20000801	00-2	REVISED DATA DICTIONARY AND REPORT FORM SET (VERSION 20000126) GOES INTO EFFECT.
18	20001010		Industry ACW control chart returned within EWMA Precision limit. Alarm caused by two failing tests (-7.96, -2.59 Yi) on same stand which caused previous Precision Alarm. Lab recalibrated as new lab.
19	20001103		Industry ACW control chart exceeded EWMA Precision Warning
20	20001128		Industry ACW control chart returned within EWMA Precision limit. Alarm caused by laboratory precision problems.
21	20001204		Industry ACW control chart exceeded EWMA Precision Warning
22	20010124	00-4	CAMSHAFT LOT RESTRICTIONS
23	20010212		Industry ACW control chart returned within EWMA Precision limit. Alarm caused by laboratory precision problems. Same lab as previous EWMA Precision Alarm.
24	20010312		Industry ACW control chart exceeded EWMA Severity Warning
25	20010422		Industry ACW control chart returned within EWMA Severity limit. Alarm caused by same lab which had been experiencing precision problems.
26	20010429		First occurrence of 2000 camshafts in reference oil data
27	20010429		First occurrence of 2000 rocker arms in reference oil data
28	20010524	01-2	REVISED ENGINE AND CYLINDER HEAD REPLACEMENT GUIDELINES
29	20010525	01-2	REVISED TEST NUMBERING DEFINITION
30	20010716	01-1	ROCKER COVER COOLANT FLOW MEASUREMENT
31	20011002		Industry ACW control chart exceeded EWMA Severity Warning

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32	20011114	02-1	REVISED ENGINE BREAK-IN SPECIFICATION
33	20020223		Industry ACW control chart returned within EWMA Severity limit. Alarm caused by two labs performing mild, but within limits. No cause for shift found.
34	20020401		First occurrence of 2001 camshafts in reference oil data
35	20020405	02-2	REVISED CAMSHAFT MEASUREMENT PROCEDURES
36	20020513		First occurrence of 2001 cylinder heads in reference oil data
37	20020514	02-3	REVISED STAND CALIBRATION REQUIREMENTS
38	20020514	02-3	REVISED INSTRUMENTATION CALIBRATION REQUIREMENTS
39	20020601	02-3	REVISED OIL SAMPLE TAP LOCATION
40	20021216	02-4	LUBRICATION OF CAMSHAFT DURING INSTALLATION
41	20030409		First occurrence of 2002 camshafts in reference oil data
42	20030409		First occurrence of 2002 rocker arms in reference oil data
43	20040320		Industry ACW control chart exceeded EWMA Precision Warning
44	20040426		Industry ACW control chart returned within EWMA Precision limit. Alarm caused by severe performance of new laboratory entering system.
45	20040511	04-1	REVISED CAMSHAFT BORE MEASUREMENT REQUIREMENTS
46	20040511	04-1	EDITORIAL CORRECTIONS
47	20040511	04-1	REVISED PRECISION DEFINITIONS
48	20040511	04-1	Camshaft Bearing Bore Measurements Eliminated Except for Initial Build
49	20040602	04-1	NEW SOLVENT SPECIFICATIONS
50	20040719	04-1	Revised Precision Definitions
51	20041107		First occurrence of 2002 cylinder heads in reference oil data
52	20050107	05-1	Revised Cylinder Head and Engine Replacement Requirements
53	20050107	05-1	Clarified Solvent Specifications
54	20050107	05-1	Revised Coolant Out Temperature QI U & L Values
55	20050107	05-1	Revised Stand Instrumentation Calibration Frequencies
56	20050107	05-1	Added Sections/Annex defining Role of TMC
57	20050107	05-1	Added Provisions for Adjusting Stand Calibration Periods for Donated Oil Programs
58	20050608	05-2	Updated Precision Estimate
59	20051213	05-3	Added tolerance to sensor location
60	20051213	05-3	Revised # of runs allowed on head and block
61	20051213	05-3	Oil cooler, PCV valve and coolant system cleaning/replacement schedule
62	20051213	05-3	Added limits on lost operational test data
63	20051213	05-3	Changed fuel temperature control limits
64	20051213	05-3	Revised torque control strategy
65	20060216	06-1	Revised wear measurement techniques
66	20060216	06-1	Editorial changes
67	20071116		Updated Reference oil targets, Oil 1009 (n = 29)
68	20081120	08-1	Editorial changes

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<b>69</b>	20081120	08-1	Revised QI calculation to address removal of Bad Quality Data (BQD)
<b>70</b>	20090618	09-1	Dropped valve spring free length and squareness measurement
<b>71</b>	20090618	09-1	Increased number of allowable runs on head and block
<b>72</b>	20090618	09-1	Added coolant pressure, RAC in and out temps and front cover flow to method
<b>73</b>	20090922	09-2	Deleted requirement to mail hard copy test report to TMC