



## Test Monitoring Center

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Sequence IIIG Information Letter 14-2  
Sequence No. 39  
March 25, 2014

*ASTM consensus has not been obtained on this information letter. An appropriate ASTM ballot will be issued in order to achieve such consensus.*

TO: Sequence III Mailing List

SUBJECT: Additional Run on Hardened Seat Cylinder Heads

During the March 18, 2014 Sequence III Surveillance Panel Conference call, the panel agreed to allow the reuse of cylinder heads with hardened valve seat material. Table A2.2 of Annex A2 has been revised to include cylinder head part number 24502260S for Sequence IIIG tests. In order to document where cylinder heads have been reused, laboratories are to append the run number, i.e. "2" for the second run with the heads, to the cylinder head part numbers. These heads may be used for non-reference testing on or after March 18, 2014, provided that the laboratory has conducted a successful reference oil test, first on the initial use of the hardened seat heads (see Information Letter 14-1) and must also conduct a successful reference on a used hardened seat head prior to reusing the hardened seat heads for non-reference oil tests. Section 9.7.2.1 has been added and Table A2.2 of Annex A2 of Test Method D 7320 has been updated accordingly and are attached. The change(s) to this table are highlighted in red.

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Attachments

c: [ftp://ftp.astmtmc.cmu.edu/docs/gas/sequenceiii/procedure\\_and\\_ils/IIIG/IL14-2.pdf](ftp://ftp.astmtmc.cmu.edu/docs/gas/sequenceiii/procedure_and_ils/IIIG/IL14-2.pdf)

Distribution: Electronic Mail

**Modifies Test Method D7320-13, as amended by Information Letter 14-1**

9.7.2.1 *Hardened Seat Heads*—Cylinder heads with hardened seats, part number 24502260S, can be used for non-reference oil tests once an acceptable reference oil test has been completed in the laboratory. These heads can also be reused for one additional test, provided an acceptable reference oil test has been obtained with the reused heads and the criteria in section 5a of the assembly manual has been met. When a second test is conducted on cylinder head part number 24502260S, append a “2” to the part number reported in the test report. Once a laboratory has obtained acceptable reference oil results on both new and reused 24502260S heads, the laboratory can use either new or reused tests for any tests.

TABLE A2.2 Parts to be Replaced As Needed

Part Description	Part Number
ADAPTER, BLOWBY BREATHER TUBE	OHT3F-040-1
ADAPTER, OIL FILTER	OHT3F-035-1
Adapter, Oil Filter, with External Bypass	OHT3F-080-1
Adapter, Throttle Body, Air Inlet	OHT3F-001-2
Balancer, Harmonic	12563267
Bearing, Balance Shaft Front (part of 24502388)	SKF6205-2ZNRJEM
Block, Engine Assembly	24502286
Bolt, Connecting Rod	11610158
Bolt, Counter Balance Gear	24501367
Bolt, Counter Balance Shaft Retainer	24500055
Bolt, Engine Front Cover	24504712
Bolt, Harmonic Balancer	24504736
Bolt, Lower Intake	9440227
Bolt, Oil Filter Adapter	24504713
Bolt, Oil Pan	1160052
Bolt, Oil Suction Tube	24505570
Bolt, Rear Cover Housing	11518075
Bolt, Rocker Cover	24502164
Bolt, Screw Camshaft Sensor	25526395
Bolt, Screw, Oil Gearotor, Cover	25519242
Bolt, Stud Type, Front Cover & Crankshaft Sensor (long)	24504718
Bolt, Stud Type, Front Cover & Crankshaft Sensor (short)	24504717
Bolt, Upper Intake Long	24505205
Bolt, Upper Intake Short	24506498
Bolt, Upper Intake, Stud	24502453
BRACKET, BREATHER TUBE	OHT3F-041-1
BREATHER TUBE, S.S. MATERIAL	OHT3F-075-1
Bushing, Balance Shaft Rear	24503193
BUSHING, ROCKER COVER	OHT3F-028-1
BUSHING, ROCKER COVER	OHT3F-028-2
Coil, Ignition	10472401 or 89056799
CONNECTOR, MODIFIED FOR LENGTH, GM PN 24502883	OHT3F-039-2
COVER, FRONT, IMPREGNATED	OHT3G-085-1
COVER, Rear, crankshaft rear seal housing	OHT3G-088-1
Cover, Oil Gearotor	25521935
Cover, Rocker Arm Valve Cover Left Side Plastic	12590366
Crankshaft	24502168
Cylinder Head	24502260S
DIP STICK, METRIC, EXTENDED LENGTH	OHT3G-064-1

Part Description	Part Number
FITTING, OIL FILTER ADAPTER	OHT3F-043-1
FLYWHEEL, MANUAL, MODIFIED P.N. 24503285	OHT3F-020-2
GASKET, EXHAUST, END PLATE	OHT3F-009-1
GASKET, EXHAUST, FLANGE, METAL	OHT3F-018-1
Gasket, Manifold, Upper Intake	89017556
GASKET, OIL COOLER, PKG. OF 50	OHT3F-074-1
GASKET, OIL FILTER, PKG. OF 50	OHT3F-062-1
Gear, Balanceshaft Drive	24504792
Gear, Balanceshaft Driven	24503524
Gear, Counter Balance Drive	24504792
Gear, Counter Balance Shaft	24503524
Grommet, Rocker Arm Valve cover bolt	25534749
HARNESS, COIL PACK SEGMENT	3F022-2
HARNESS, FUEL INJECTOR SEGMENT	3F022-1
HARNESS, WIRING, DYNO W/ OHT3F-056-1 SENSOR	OHT3F-022-1
HOUSING, ASSEMBLY, BYPASS VALVE	OHT3F-084-1
Injector, Fuel	17120601
Key, Crankshaft	12563282
Magnet, Camshaft Position Sensor	10456195
MANIFOLD, CAST IRON	OHT3F-003-0
MANIFOLD, EXHAUST, WATER COOLED ASSY (ONE BANK)	OHT3F-003-1
ASSEMBLY INCLUDES:	
1 EA. RUNNER, EXHAUST MANIFOLD	OHT3F-004-1
1 EA. PLATE, REAR, EXHAUST MANIFOLD	OHT3F-005-1
1 EA. ELBOW, EXHAUST, MODIFIED	OHT3F-005A-1
1 EA. PLATE, FRONT, EXHAUST MANIFOLD	OHT3F-006-1
2 EA. GASKET, EXHAUST, END PLATE	OHT3F-009-1
1 EA. GASKET, EXHAUST, FLANGE, METAL	OHT3F-018-1
Manifold, Lower Intake	24508923
Manifold, Upper Intake	89017272
METER, BLOWBY	RX-116169-A1 REV N
Module, Coil Pack	12617924
MOUNT FRONT ENGINE W/ BOLT PATTERN FOR COIL PACK	OHT3F-026-1
MOUNT, REAR ENGINE HOUSING W/AIR STARTER, MUFFLER & SHIM PACK	OHT3F-025-1
ASSEMBLY INCLUDES:	
STARTER, AIR	3F025-03
MUFFLER, STARTER, AIR	3F025-04
SHIM PACK, STARTER, AIR	3F025-05
MUFFLER, STARTER, AIR	3F025-04
Nut, Throttle Body Fuel Rail Retainer	3530297
Nut, Throttle body Retainer	3530297
OIL FILTER HOUSING ASSEMBLY, NO BYPASS, IMPREGNATED	OHT3G-080-1
OUTLET, COOLANT	OHT3F-034-1
PAN, IIIF TEST, NICKEL PLATED	OHT3F-073-1
PCM, SPECIAL	OHT3F-021-1
PCV, DUMMY	OHT3F-002-1
Pin, Cylinder Head Locating	25536320
Pin, Front Cover Lower	25536323
Pin, Front Cover Upper	25536323
PLATE, EGR BLOCKOFF	OHT3F-024-1
PLATE, FRONT, EXHAUST MANIFOLD	OHT3F-006-1
PLATE, REAR, EXHAUST MANIFOLD	OHT3F-005-1

Part Description	Part Number
PLATE, WATER PUMP HOUSING	OHT3F-031-1
Plug, Auto Hex, Socket, (Main Oil Gallery Block Off)	444777
PLUG, DIP STICK	OHT3F-065-1
PLUG, DRAIN, MODIFIED	OHT3F-063-1
Pump, Oil, Gearoter Set	24505433
Rail, Fuel Injector	12587077
REAMER, DIP STICK AND DIP STICK HOLE PLUG	OHT3F-071-1
Regulator, Fuel Pressure, on Rail	89017530 or 89060416
Retainer, Counter Balance, Timing Chain Oiler	24500374
Retainer, Rocker arm (replace after 6 tests)	24502278
RUNNER, EXHAUST MANIFOLD	OHT3F-004-1
Screen, Oil pump (w/suction pipe)	24505569
Seal, Ignition Coil	1989579
Seal, oil pan drain plug (o ring)	3536966
Sensor, Camshaft Position	10456148
Sensor, Crankshaft Position	10456161
Sensor, MAF	19112543 or 19179715
SENSOR, MODIFIED COOLANT TEMPERATURE	OHT3F-056-1
Shaft Assembly, Counter Balance	24506557
Shield, Crankshaft Position Sensor	24506440 or 12591982
SHIM PACK, STARTER, AIR	3F025-05
SHIM, STEEL, 0.127 mm THICK, 10 PER PKG.	OHT3F-072-005
SHIM, STEEL, 0.254 mm THICK, 10 PER PKG.	OHT3F-072-010
SHIM, STEEL, 0.381 mm THICK, 10 PER PKG.	OHT3F-072-015
SHIM, STEEL, 0.508 mm THICK, 10 PER PKG.	OHT3F-072-020
SHIM, STEEL, 0.787 mm THICK, 10 PER PKG.	OHT3F-072-031
SLEEVE, VALVE STEM PROTECTORS (PKG. OF 100)	OHT3F-070-1
SPROCKET, CRANKSHAFT, SPECIAL 2 PC	OHT3F-036-1
STARTER, AIR	3F025-03
Stud, front cover (2)	24504717
Stud, front cover (2)	24504718
Support, throttle body	24504697
Throttle Body (2 Bolt Mass Air Flow Sensor)	24507235
TOOL, CAMSHAFT BUSHING INSTALLATION	OHT3F-019-2
TOOL, OIL PUMP PRIMER	OHT3F-038-1
Tube, throttle body to fuel pressure regulator	24505671