

# Sequence III Surveillance Panel Teleconference Meeting Minutes

January 29, 2014

## 1.0) Attendance

The attendance is shown in Attachment 1.

## 2.0) Approval of minutes

The minutes from the December 17, 2013 teleconference (posted on the TMC site) were approved without objection.

## 3.0) Action Item Review

### 3.1) Update on used cylinder block inventory for potential use with run 7 & 8 pistons and rings.

Dave Glaenzer indicated about 1180 runs worth of blocks appear to be available. This item will be reviewed further at a future meeting. Jason Bowden reminded labs to save all of their wrist pins. Below is Dave's full summary:

As of November, 2013 the industry had 121 new, unused engine blocks.

As of ~ January 17, 2014 the industry had 106 used, 6<sup>th</sup> run blocks.

We have the potential for 227 runs with size 7 pistons and rings and 227 runs with size 8 pistons and rings.

If all unused blocks are used for 8 tests each, they will make 968 runs.

If all used blocks are used for 2 more tests each, they will make 212 runs.

Total Sequence III runs available from an engine block perspective is 1180 plus the runs available in the labs on "in-service" blocks.

In November, we estimated that with cylinder head rebuild, we could make ~1200 more runs from a cylinder head perspective.

I believe reasonable run rates to be:

2014 500 runs

2015 400 runs

2016 300 runs

## 4.0) New Business

### 4.1) Update on work by Cylinder Head Task Force. **Sid Clark**

Sid Clark indicated the task force passed a motion on the January 22, 2014 conference call as follows:

**Motion: Robert Stockwell / Ed Altman**

*Chevy Performance will start allocation and shipment of Stellite Seat Cylinder Heads as soon as received from Schwartz Machine. As soon as 80 cylinder heads have been received by Chevy Performance, notification will be sent out by Scott and labs may start referencing on the Stellite Seat Insert Cylinder Heads.*

*Passed Unanimously*

Scott Stap indicated a target of February 17 to meet the 80 head required by the motion. In response to a question about tracking use of the stellite seat heads, it was commented that use of the heads should be traceable by part numbers and serial numbers.

Robert Stockwell moved, Pat Lang seconded the same motion cited above. During discussion, Charlie Leverett calculated a potential use rate of about 22 heads a week and he was curious if that level of demand for the heads could be met. Scott Stap indicated that production will continue until the heads are exhausted. Supply rate is expected to be about 25 heads per week. At the conclusion of the discussion, Bill Buscher offered changes to the motion, which were agreed to by the motioner and seconder.

**Motion: Robert Stockwell / Pat Lang**

*Chevy Performance will start allocation and shipment of Stellite Seat Cylinder Heads as soon as received from Schwartz Machine. As soon as cylinder heads are received by labs, they may start referencing. Then as soon as 80 cylinder heads have been received by Chevy Performance, notification will be sent out by Scott and labs may start candidate testing provided they have successfully calibrated on the Stellite Seat Insert Cylinder Heads.*

*The motion passed unanimously.*

Since some labs will not need heads right away, Scott will send two to each lab that does need heads right away.

### 4.2) Reconditioning of Used Stellite Seat heads for additional use. **All**

Sid Clark noted that a reconditioning procedure had been distributed prior to the meeting by Ed Altman (Attachment 2). The procedure is still a work in progress, but the task force will continue working towards a final procedure. There is also an initiative

under way to re-work non-stellite seat heads. Sid will report on these items at a later meeting.

#### 4.3) Introduction of Stellite Seat heads via RO testing. **All**

Stellite seat heads will be introduced with a successful reference test (on a per lab basis) prior to switching candidates to the stellite seat heads.

#### 4.4) Extension of Calibration periods at lab(s) to coincide with Stellite Seat head introduction. **All**

Ed Altman moved, Pat Lang seconded to allow labs up to a 3 week / 5 test extension (if requested by the lab) to keep them calibrated until they reference on the stellite heads. Any extension must be paid back during the subsequent calibration period. The motion passed without objection and one waive (TMC).

#### 4.5) Concerns about 433-2 reblend (IIIF reference oil)

Dave Glaenzer stated the new oil viscosity appears to be different; two results (one pass, one severe fail) have been run so far. Rich Grundza noted that the supplier indicated this met all their reblend criteria. The data that was referenced during the call is shown in Attachment 3.

### 5.0) Next Meeting

5.1) SP Chairman to arrange mid-February meeting with Chrysler, Mopar, test developer, test lab representatives, CPD(s) and TMC in Detroit area to review Chrysler test parts distribution and ASTM procedure.

### 6.0) Meeting Adjourned - 3:15 pm.

# ATTACHMENT 1

15 of 20 VOTING MEMBERS

PRESENT  
date: 01/29/14

ASTM Sequence III Surveillance Panel (20 Voting members)

Name/Address	Phone/Fax/Email	Teleconference	Signature
Ed Altman Afton Chemical Corporation 500 Spring Street Richmond, VA 23219 USA	804-788-5279 804-788-6358 <a href="mailto:ed.altman@aftonchemical.com">ed.altman@aftonchemical.com</a>	Voting Member	Present <input checked="" type="checkbox"/>
Art Andrews ExxonMobil Products Research 600 Billingsport Rd. Paulsboro, NJ 08066 USA	856-224-3013 <a href="mailto:arthur.t.andrews@exxonmobil.com">arthur.t.andrews@exxonmobil.com</a>	Non-Voting Member	Present <input type="checkbox"/>
Zack Bishop Test Engineering, Inc. 12718 Cimarron Path San Antonio, TX 78249-3423 USA	210-877-0223 210-690-1959 <a href="mailto:zbishop@tei-net.com">zbishop@tei-net.com</a>	Non-Voting Member	Present <input type="checkbox"/>
Doyle Boese Infineum 1900 E. Linden Avenue Linden, NJ 07036 USA	908-474-3176 908-474-3637 <a href="mailto:doyle.boese@infineum.com">doyle.boese@infineum.com</a>	Non-Voting Member	Present <input type="checkbox"/>
Adam Bowden OH Technologies, Inc. 9300 Progress Parkway P.O. Box 5039 Mentor, OH 44061-5039 USA	440-354-7007 440-354-7080 <a href="mailto:adbowden@ohtech.com">adbowden@ohtech.com</a>	Non-Voting Member	Present <input type="checkbox"/>
Jason Bowden OH Technologies, Inc. 9300 Progress Parkway P.O. Box 5039 Mentor, OH 44061-5039 USA	440-354-7007 440-354-7080 <a href="mailto:jhbowden@ohtech.com">jhbowden@ohtech.com</a>	Voting Member	Present <input checked="" type="checkbox"/>
Dwight H. Bowden OH Technologies, Inc. 9300 Progress Parkway P.O. Box 5039 Mentor, OH 44061-5039 USA	440-354-7007 440-354-7080 <a href="mailto:dhbowden@ohtech.com">dhbowden@ohtech.com</a>	Non-Voting Member	Present <input type="checkbox"/>

# TELECONFERENCE

ASTM Sequence III Surveillance Panel (20 Voting members)

date: 01/29/2014

15/20 Voting Members

Name/Address	Phone/Fax/Email		Signature
Matt Bowden OH Technologies, Inc. 9300 Progress Parkway P.O. Box 5039 Mentor, OH 44061-5039 USA	440-354-7007 440-354-7080 <a href="mailto:mjbowden@ohtech.com">mjbowden@ohtech.com</a>	Non-Voting Member	Present <input checked="" type="checkbox"/>
Jerome A. Brys Lubrizol Corp. 29400 Lakeland Blvd. Wickliffe, Ohio 44092 USA	440 347-2631 <a href="mailto:jerome.brys@lubrizol.com">jerome.brys@lubrizol.com</a>	Non-Voting Member	Present <input checked="" type="checkbox"/>
Bill Buscher III Southwest Research Institute 6220 Culebra Road P.O. Box 28510 San Antonio, TX 78228 USA	210-522-6802 210-684-7523 <a href="mailto:william.buscher@swri.org">william.buscher@swri.org</a>	Non-Voting Member	Present <input checked="" type="checkbox"/>
Bob Campbell Afton Chemical Corporation 500 Spring Street Richmond, VA 23219 USA	804-788-5340 804-788-6358 <a href="mailto:bob.campbell@aftonchemical.com">bob.campbell@aftonchemical.com</a>	Non-Voting Member	Present <input type="checkbox"/>
Chris Castanien The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, OH 44092 USA	440-347-2973 440-944-8112 <a href="mailto:cca@lubrizol.com">cca@lubrizol.com</a>	Non-Voting Member	Present <input type="checkbox"/>
Timothy L. Caudill Ashland Oil Inc. 22 <sup>nd</sup> & Front Streets Ashland, KY 41101 USA	606-329-1960 x5708 606-329-2044 <a href="mailto:tlcaudill@ashland.com">tlcaudill@ashland.com</a>	Voting Member	Present <input checked="" type="checkbox"/>
Martin Chadwick Intertek Automotive Research 5404 Bandera Road San Antonio, TX 78238 USA	210-706-1543 210-684-6074 <a href="mailto:martin.chadwick@intertek.com">martin.chadwick@intertek.com</a>	Non-Voting Member	Present <input type="checkbox"/>



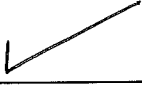
ASTM Sequence III Surveillance Panel (20 Voting members)

date:

Name/Address	Phone/Fax/Email		Signature
Jeff Clark Sequence III Secretary ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206 USA	412-365-1032 412-365-1047 <a href="mailto:jac@atc-erc.org">jac@atc-erc.org</a>	Non-Voting Member	Present <u>✓</u>
Sid Clark Southwest Research 50481 Peggy Lane Chesterfield, MI 48047 USA	586-873-1255 <a href="mailto:Sidney.L.Clark@swri.org">Sidney.L.Clark@swri.org</a>	Non-Voting Member	Present <u>✓</u>
J. Michael Conrad, II The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, OH 44902-2298 USA	440-347-4594 440-347-4096 <a href="mailto:Michael.conrad@lubrizol.com">Michael.conrad@lubrizol.com</a>	Non-Voting Member	Present _____
Todd Dvorak Afton Chemical Corporation P.O. Box 2158 Richmond, VA 23218-2158 USA	804-788- 6367 804-788- 6388 <a href="mailto:todd.dvorak@aftonchemical.com">todd.dvorak@aftonchemical.com</a>	Non-Voting Member	Present _____
Frank Farber ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206 USA	412-365-1030 412-365-1047 <a href="mailto:fmf@astmtmc.cmu.edu">fmf@astmtmc.cmu.edu</a>	Non-Voting Member	Present _____
Gordon R. Farnsworth Infineum RR # 5 Box 211 Montrose, PA 18801 USA	570-934-2776 570-934-0141 <a href="mailto:gordon.farnsworth@infineum.com">gordon.farnsworth@infineum.com</a>	Non-Voting Member	Present <u>✓</u>
Joe Franklin Intertek Automotive Research 5404 Bandera Road San Antonio, TX 78238 USA	210-523-4671 210-523-4607 <a href="mailto:joe.franklin@intertek.com">joe.franklin@intertek.com</a>	Non-Voting Member	Present _____

ASTM Sequence III Surveillance Panel (20 Voting members)

date:

Name/Address	Phone/Fax/Email		Signature
David L. Glaenzer Afton Chemical Corporation 500 Spring Street P.O. Box 2158 Richmond, VA 23218-2158 USA	804-788-5214 804-788-6358 <a href="mailto:dave.glaenzer@aftonchemical.com">dave.glaenzer@aftonchemical.com</a> <b>Surveillance Panel Chairman</b>	Non-Voting Member	Present 
Richard Grundza ASTM Test Monitoring Center 6555 Penn Avenue Pittsburgh, PA 15206 USA	412-365-1031 412-365-1047 <a href="mailto:reg@astmtmc.cmu.edu">reg@astmtmc.cmu.edu</a>	Voting Member	Present 
Tracey King Haltermann Solutions  MI USA	947-517-4107  <a href="mailto:tking@jhaltermann.com">tking@jhaltermann.com</a>	Voting Member	Present _____
Clayton Knight Test Engineering, Inc. 12718 Cimarron Path San Antonio, TX 78249-3423 USA	210-690-1958 210-690-1959 <a href="mailto:cknight@tei-net.com">cknight@tei-net.com</a>	Non-Voting Member	Present _____
Teri Kowalski Toyota Motor North America, Inc. 1555 Woodridge Ann Arbor, MI 48105 USA	734-995-4032 734-995-9049 <a href="mailto:teri.kowalski@tema.toyota.com">teri.kowalski@tema.toyota.com</a>	Voting Member	Present _____
Patrick Lang Southwest Research Institute 6220 Culebra Road P.O. Box 28510 San Antonio, TX 78228 USA	210-522-2820 210-684-7523 <a href="mailto:plang@swri.edu">plang@swri.edu</a>	Voting Member	Present 
Walter Lerche GM M/C 482-A30-C71 100 Renaissance Center Detroit, MI 48265 USA	313-667-1918 313-667-4095 <a href="mailto:walt.lerche@gm.com">walt.lerche@gm.com</a>	Voting Member	Present _____

ASTM Sequence III Surveillance Panel (20 Voting members)


date:

Name/Address	Phone/Fax/Email		Signature
Charlie Leverett Intertek Automotive Research 5404 Bandera Road San Antonio, TX 78238 USA	210-647-9422 210-523-4607 <a href="mailto:charlie.leverett@intertek.com">charlie.leverett@intertek.com</a>	Voting Member	Present <input checked="" type="checkbox"/>
Josephine G. Martinez Chevron Oronite Company LLC 100 Chevron Way Richmond, CA 94802 USA	510-242-5563 510-242-3173 <a href="mailto:jogm@chevrontexaco.com">jogm@chevrontexaco.com</a>	Non-Voting Member	Present <input type="checkbox"/>
Bruce Matthews GM Powertrain Mail Code 483-730-472 823 Jocyn Avenue Pontiac, MI 48340 USA	248-830-9197 248-857-4441 <a href="mailto:bruce.matthews@gm.com">bruce.matthews@gm.com</a> <b>Test Sponsor Representative</b>	Voting Member	Present <input checked="" type="checkbox"/>
Mike McMillan	<a href="mailto:mmcmillan123@comcast.net">mmcmillan123@comcast.net</a>	Non-Voting Member	Present <input type="checkbox"/>
Timothy Miranda BP Castrol Lubricants USA 1500 Valley Road Wayne, NJ 07470 USA	973-305-3334 973-686-4039 <a href="mailto:Timothy.Miranda@bp.com">Timothy.Miranda@bp.com</a>	Voting Member	Present <input type="checkbox"/>
Mark Mosher ExxonMobil Technology Co. Billingsport Road Paulsboro, NJ 08066 USA	856-224-2132 856-224-3628 <a href="mailto:mark.r.mosher@exxonmobil.com">mark.r.mosher@exxonmobil.com</a>	Voting Member	Present <input checked="" type="checkbox"/>
Siamak Moshiri Cad Railway Industries Ltd. 155 Montreal – Toronto Highway H8S 1B4 Montreal, QC CANADA	1-634-3131, ext. 412 <a href="mailto:smoshiri@cadrail.ca">smoshiri@cadrail.ca</a>	Non-Voting Member	Present <input type="checkbox"/>
Bob Olree 5388 Hill 23 Drive Flint, MI 48507 USA	248-689-3078 <a href="mailto:olree@netzero.net">olree@netzero.net</a>	Non-Voting Member	Present <input type="checkbox"/>



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date:

Name/Address	Phone/Fax/Email		Signature
Christian Porter Afton Chemical Corp. 500 Spring Street Richmond, VA 23219 USA	804-788-5837 804-788-6358 <a href="mailto:christian.porter@aftonchemical.com">christian.porter@aftonchemical.com</a>	Non-Voting Member	Present _____
Phil Rabbat BASF Corporation 500 White Plains Road Tarrytown, NY 10591-9005 USA	914-785-2217 914-785-3681 <a href="mailto:phil.rabbat@basf.com">phil.rabbat@basf.com</a>	Non-Voting Member	Present _____
Allison Rajakumar The Lubrizol Corporation Drop 152A 29400 Lakeland Blvd. Wickliffe, OH 44092 USA	440-347-4679 440-347-2014 <a href="mailto:Allison.Rajakumar@Lubrizol.com">Allison.Rajakumar@Lubrizol.com</a>	Non-Voting Member	Present _____
Scott Rajala Idemitsu Lubricants America Corp.	<a href="mailto:srajala@ilacorp.com">srajala@ilacorp.com</a>	Non-Voting Member	Present _____
Andrew Ritchie Infineum 1900 East Linden Avenue P.O. Box 735 Linden, NJ 07036 USA	908-474-2097 908-474-3637 <a href="mailto:Andrew.Ritchie@Infineum.com">Andrew.Ritchie@Infineum.com</a>	Voting Member	Present  _____
Ron Romano Ford Motor Company Diagnostic Service Center II Room 410. 1800 Fairlane Drive Allen Park, MI 48101 USA	313-845-4068 313-32-38042 <a href="mailto:rromano@ford.com">rromano@ford.com</a>	Voting Member	Present _____
Jim Rutherford Chevron Oronite Company LLC 100 Chevron Way Richmond, CA 94802 USA	510-242-3410 510-242-3173 <a href="mailto:jaru@chevrontexaco.com">jaru@chevrontexaco.com</a>	Non-Voting Member	Present _____
Addison Schweitzer Intertek AR		Non-Voting Member	Present _____

ASTM Sequence III Surveillance Panel (20 Voting members)

date:

Name/Address	Phone/Fax/Email		Signature
Philip R. Scinto The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, OH 44092 USA	440-347-2161 440-347-9031 <a href="mailto:prs@lubrizol.com">prs@lubrizol.com</a>	Non-Voting Member	Present _____
Greg Shank Volvo	301-790-5817 <a href="mailto:greg.shank@volvo.com">greg.shank@volvo.com</a>	Voting Member	Present _____
Kaustav Sinha, Ph.D. Chevron Oronite Co., LLC 4800 Fournace Place Bellaire, TX 77401 USA	713-432-6642 713-432-3330 <a href="mailto:LFNQ@chevron.com">LFNQ@chevron.com</a>	Voting Member	Present <input checked="" type="checkbox"/> _____
Thomas Smith Valvoline P.O. Box 14000 Lexington, KY 40512-1400 USA	859-357-2766 859-357-7084 <a href="mailto:trsmith@ashland.com">trsmith@ashland.com</a> PCEOCP Chair	Voting Member	Present _____
Don Smolenski GM	248-255-7892 <a href="mailto:donald.j.smolenski@gm.com">donald.j.smolenski@gm.com</a>	Non-Voting Member	Present _____
Scott Stap Chevrolet Performance	<a href="mailto:scott.stap@tgidirect.com">scott.stap@tgidirect.com</a>	Voting Member	Present <input checked="" type="checkbox"/> _____
Mark Sutherland Test Engineering, Inc. 12718 Cimarron Path San Antonio, TX 78249-3423 USA	<a href="mailto:msutherland@tei-net.com">msutherland@tei-net.com</a>	Voting Member	Present <input checked="" type="checkbox"/> ZACH BISHOP PROXY _____
Adam Sworski Ashland Oil Inc. 22 <sup>nd</sup> & Front Streets Ashland, KY 41101 USA	<a href="mailto:aesworski@ashland.com">aesworski@ashland.com</a>	Non-Voting Member	Present _____
George Szappanos The Lubrizol Corporation 29400 Lakeland Boulevard Wickliffe, OH 44092 USA	440-347-2352 440-347-4096 <a href="mailto:greg.seman@lubrizol.com">greg.seman@lubrizol.com</a>	Voting Member	Present <input checked="" type="checkbox"/> _____

ASTM Sequence III Surveillance Panel (20 Voting members)

date:

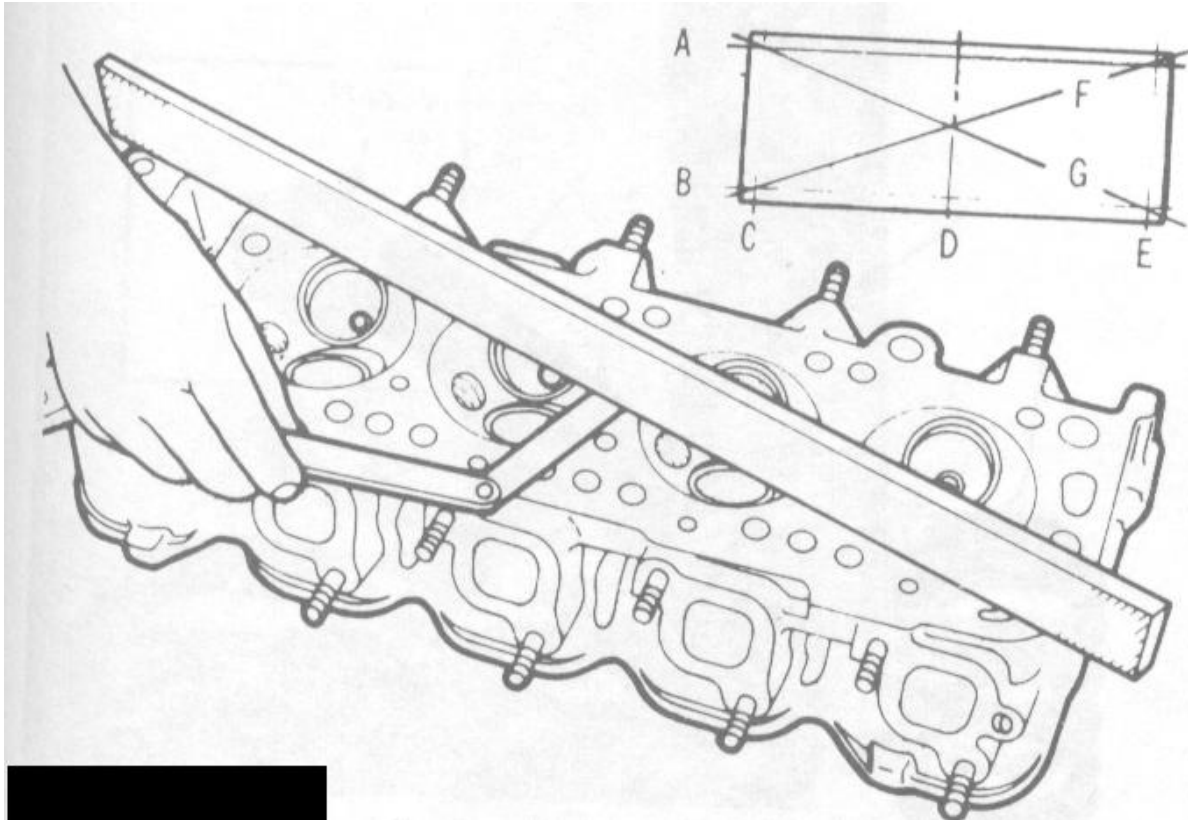
Name/Address	Phone/Fax/Email		Signature
Haiying Tang Chrysler LLC	248-512-0593 <a href="mailto:ht146@chrysler.com">ht146@chrysler.com</a>	Voting Member	Present <input checked="" type="checkbox"/>
Ben O. Weber Southwest Research Institute 6220 Culebra Road P.O. Box 28510 San Antonio, TX 78228 USA	210-522-5911 210-684-7530 <a href="mailto:bweber@swri.edu">bweber@swri.edu</a> <b>Sub-Committee D02.B01 Chair</b>	Non-Voting Member	Present <input type="checkbox"/>
Tom Wingfield Chevron Phillips Chemical Co. USA	<a href="mailto:wingftm@cpchem.com">wingftm@cpchem.com</a>	Non-Voting Member	Present <input type="checkbox"/>

RICARDO AFFINITO      OROHITE ✓  
 KAREN HAUMAN      SOUTHWEST RESEARCH ✓  
 JOE GLEASON      LUBRIZOL  
 ADDISON SCHWEITZER      INTERTEK  
 ROBERT STOCKWELL      GM  
 IRWIN GOLDBLATT      CASTROL

## ATTACHMENT 2

Procedure for reworking Stellite seat cylinder heads:

1. At the end of the first run, measure valve recession. (suggested maximum recession?) Measurement method and tooling is being developed. This will be in place before the first reference is run on the Stellite seat heads. After at least four labs complete their first reference, maximum recession will be determined based on those results.
2. Disassemble heads.
3. Visually inspect valve seats for unusual wear.
4. Measure clearance at the top and bottom of valve guides. Specified limits are .0015" - .0032"
5. Scrape head gasket from deck surface.
6. Check head deck for warping.



Using a straight edge, measure the clearance between the straight edge and the head with a feeler gauge. Maximum .004"

6. Spray head with degreasing solvent and dry with compressed air.
7. Wash heads in power washer, or use ultra sonic cleaner to remove debris from combustion chamber and intake and exhaust ports.
8. Rinse with hot water and immediately spray with 50-50 mixture of degreasing solvent and EF411.
9. Continue cleaning with degreasing solvent only, using a brush to clean any remaining debris from surfaces. Wire brush can be used in combustion chambers and intake and exhaust ports. Do not use wire brush on deck surface.
10. Spray with 50-50 mixture of degreasing solvent and EF411, then blow dry with compressed air.
11. Lap valves using a water based valve grinding compound. Use Permatex Valve Grinding Compound, water mixed, item #80036

12. Thoroughly clean lapping compound from valves and seats using water and a lint free rag. Be sure all lapping compound is removed. After cleaning lapping compound, spray entire head with degreasing solvent.
13. Spray with, with 50-50 mixture of degreasing solvent and EF411 then blow dry with compressed air.
14. Assemble heads according to the IIG assembly manual section 5, sheet 1, using all new valves, springs, keepers and caps.
15. Calibrate heads according to procedure.
16. Vacuum check heads. **Acceptance criteria to be determined.**
17. No sandpaper, scotchbrite pads or other abrasives which could transfer materials to the head surface may be used.

### ATTACHMENT 3

TESTKEY	ENGINE NO	LTMSDATE	LTMSLAB	VAL	IND	HRS	HRSyi	PVIS	PVISyi	SACLW	APV	APVyi	WPD	WPDyi	OILCON	VNEW
94554-IIIF	13008-1	20130924	B1	AC	433-2	114.02	-0.9181	42.2	-0.3167	94.6	9.32	0.0667	4.43	-0.2296	3.74	67.72
95828-IIIF	13-17-06	20131117	M2	OC	433-2	94.38	-3.4684	63.8	-1.2676	6.3	9.8	1.6667	4.08	-0.7317	4.22	68.38

IND	Average of VNEW	Count of TESTKEY
433	58.14	19
433-1	61.31	158
433-2	68.05	2