



Test Monitoring Center

6555 Penn Avenue
Pittsburgh, PA 15206-4489
(412) 365-1000

MEMORANDUM: 08-046
DATE: September 11, 2008
TO: L-37 Surveillance Panel
FROM: Donald Lind
SUBJECT: Updated Gear Batch V1L417/P4L792 Reference Oil Targets

During the September 10, 2008 L-37 Surveillance Panel teleconference call, the panel approved the use of the updated reference oil targets for non-lubricated hardware, gear batch V1L417/P4L792. The approved reference oil targets, plots and data are attached.

These reference oil targets are effective for all tests completed on or after September 10, 2008.

DML/dml

Attachments

c: Frank Farber, TMC
John L. Zalar, TMC

<ftp://ftp.astmtmc.cmu.edu/docs/gear/137/memos/mem08-046.pdf>

Distribution: email

GEAR BATCH V1L417/P4L792											
UPDATED REFERENCE OIL TEST TARGETS (PINION)											
	Reference Oil 151-3				Reference Oil 152				Reference Oil 153		
	N	Mean	S.D.		N	Mean	S.D.		N	Mean	S.D.
Wear	25	7.96	0.586		19	8.16	0.565		20	7.60	0.778 *
Ridging	25	0.166 (9.65)	0.5867		19	0.146 (9.64)	0.5031		20	-0.339 (9.09)	0.3350
Rippling	25	0.037 (9.54)	0.4141		19	-0.054 (9.44)	0.4795 *		20	-0.580 (8.71)	0.4079
Spitting	25	0.535 (9.91)	0.0990 *		19	0.541 (9.92)	0.0846 *		20	0.463 (9.87)	0.1335 *

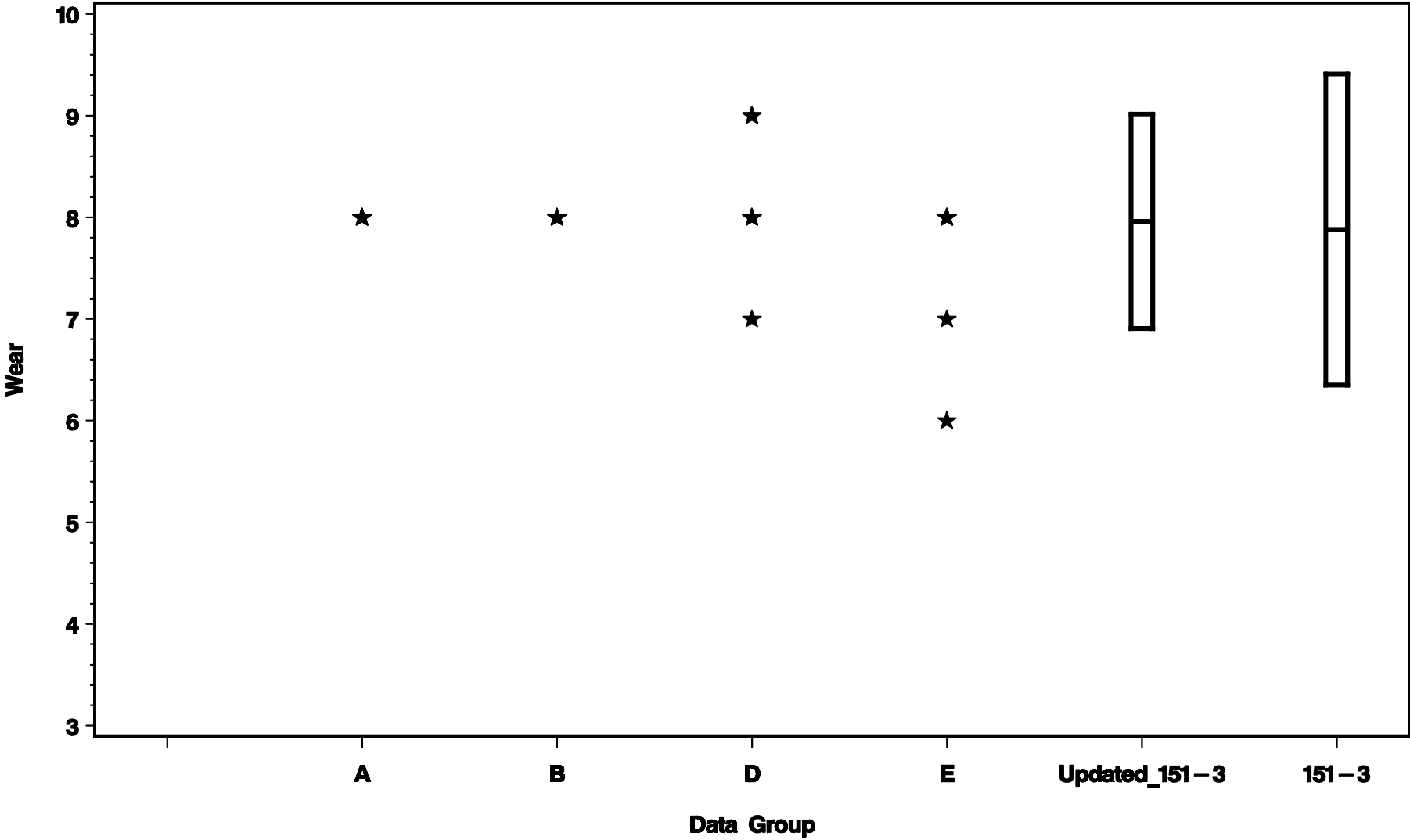
* Adjusted Standard Deviation

GEAR BATCH V1L417/P4L792											
UPDATED REFERENCE OIL TEST TARGETS (RING)											
	Reference Oil 151-3				Reference Oil 152				Reference Oil 153		
	N	Mean	S.D.		N	Mean	S.D.		N	Mean	S.D.
Wear	25	7.84	0.800		19	7.79	0.713		20	7.55	0.686
Ridging	25	0.973 (10.0)	1.4000		19	0.635 (9.97)	0.2520		20	0.067 (9.56)	0.6643
Rippling	25	0.166 (9.65)	0.5602		19	0.319 (9.77)	0.5759		20	0.309 (9.77)	0.5376
Spitting	25	0.562 (9.93)	0.0835		19	0.570 (9.93)	0.1028		20	0.524 (9.91)	0.1028

L-37 Non-lubricated Hardware, Pinion Batch V1L417/P4L792
Updated Test Target Data Set and Shewhart Severity Limits

Reference Oil 151-3 (Bands Include Merit Ratings of 7, 8, & 9)

Pinion Wear

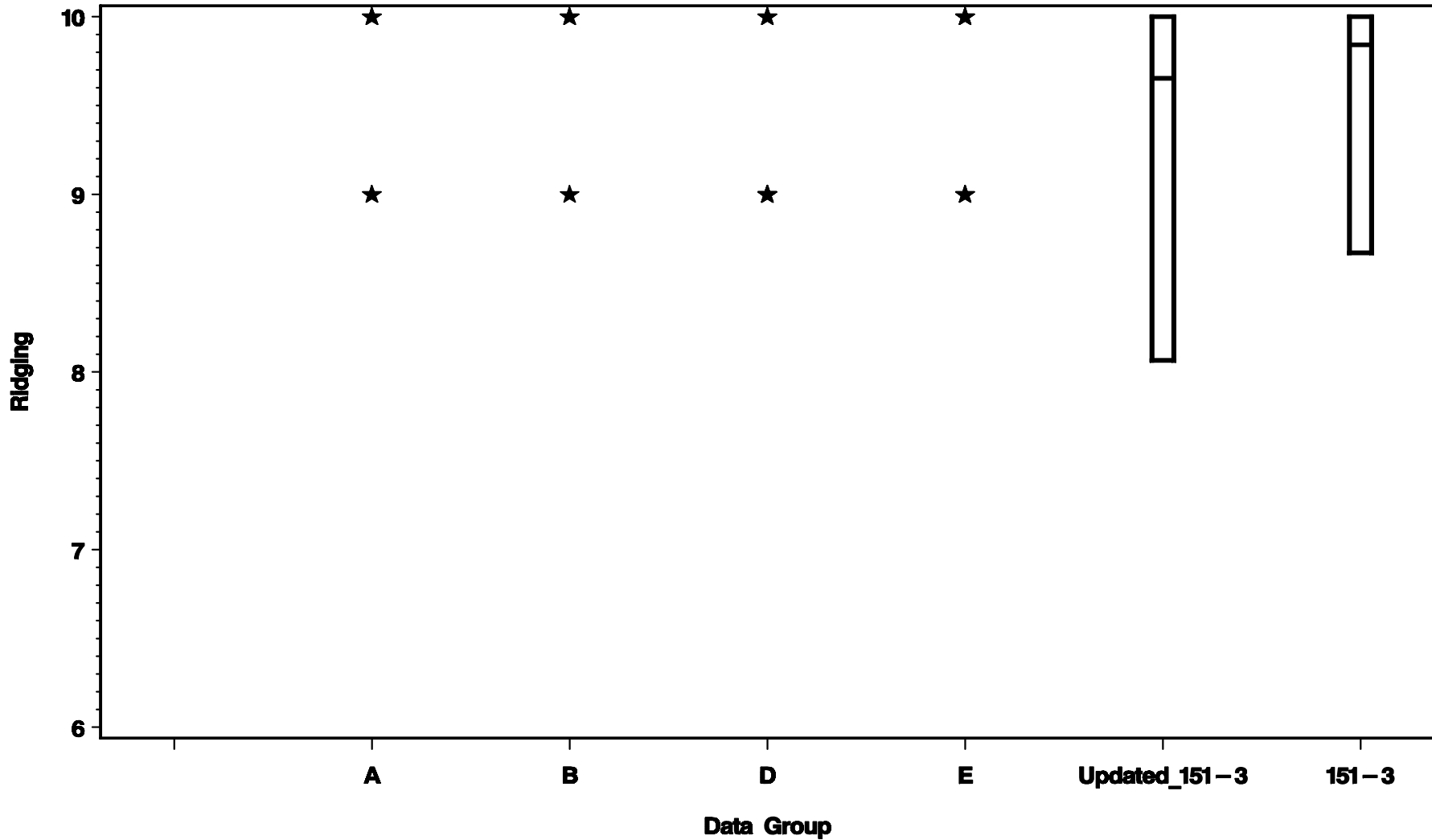


L-37 Non-lubricated Hardware, Pinion Batch V1L417/P4L792

Updated Test Target Data Set and Shewhart Severity Limits

Reference Oil 151-3 (Bands Include Merit Ratings of 9 & 10)

Pinion Ridging

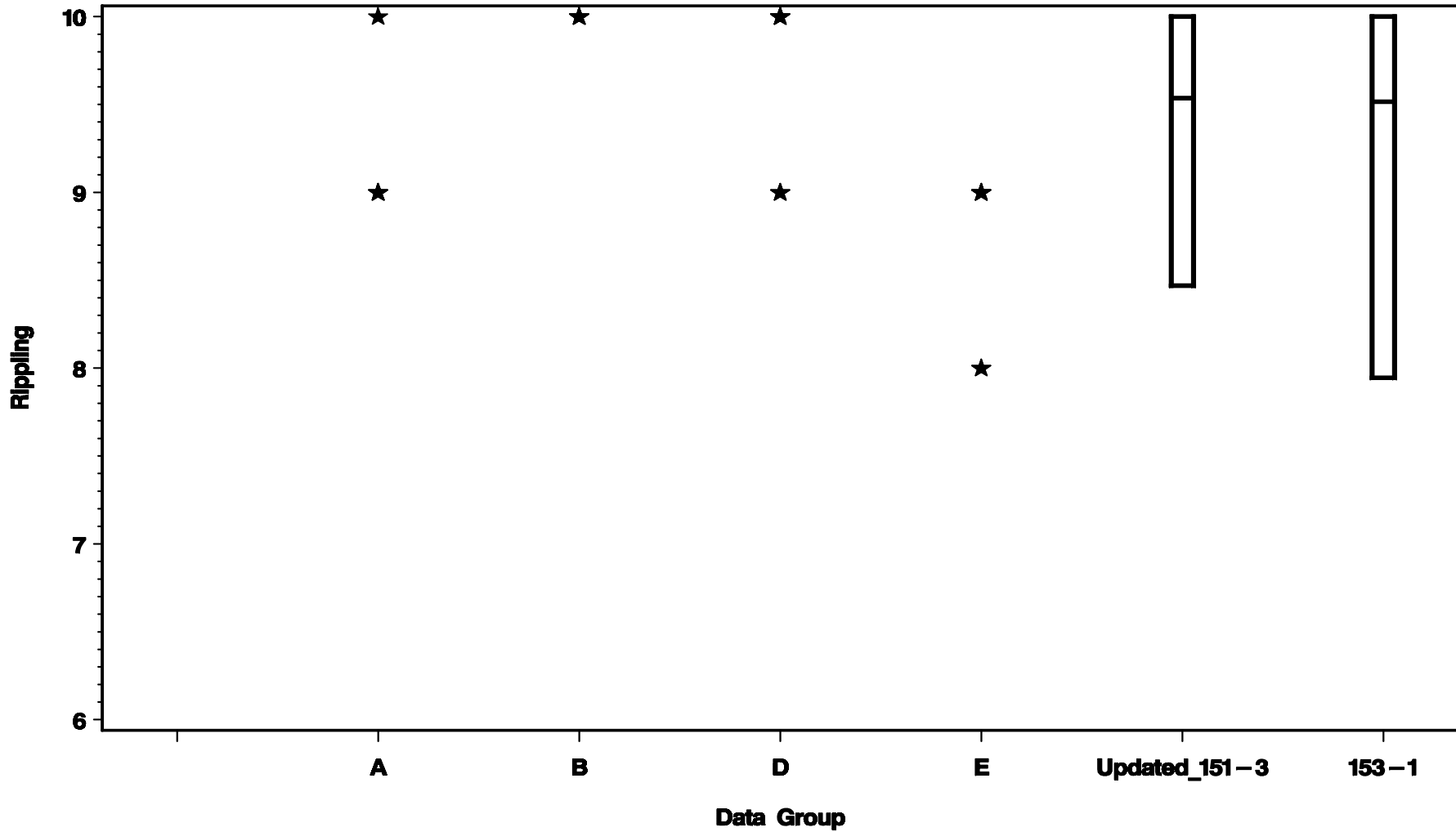


L-37 Non-lubrited Hardware, Pinion Batch V1L417/P4L792

Updated Test Target Data Set and Shewhart Severity Limits

Reference Oil 151-3 (Bands Include Merit Ratings of 9 & 10)

Pinion Rippling

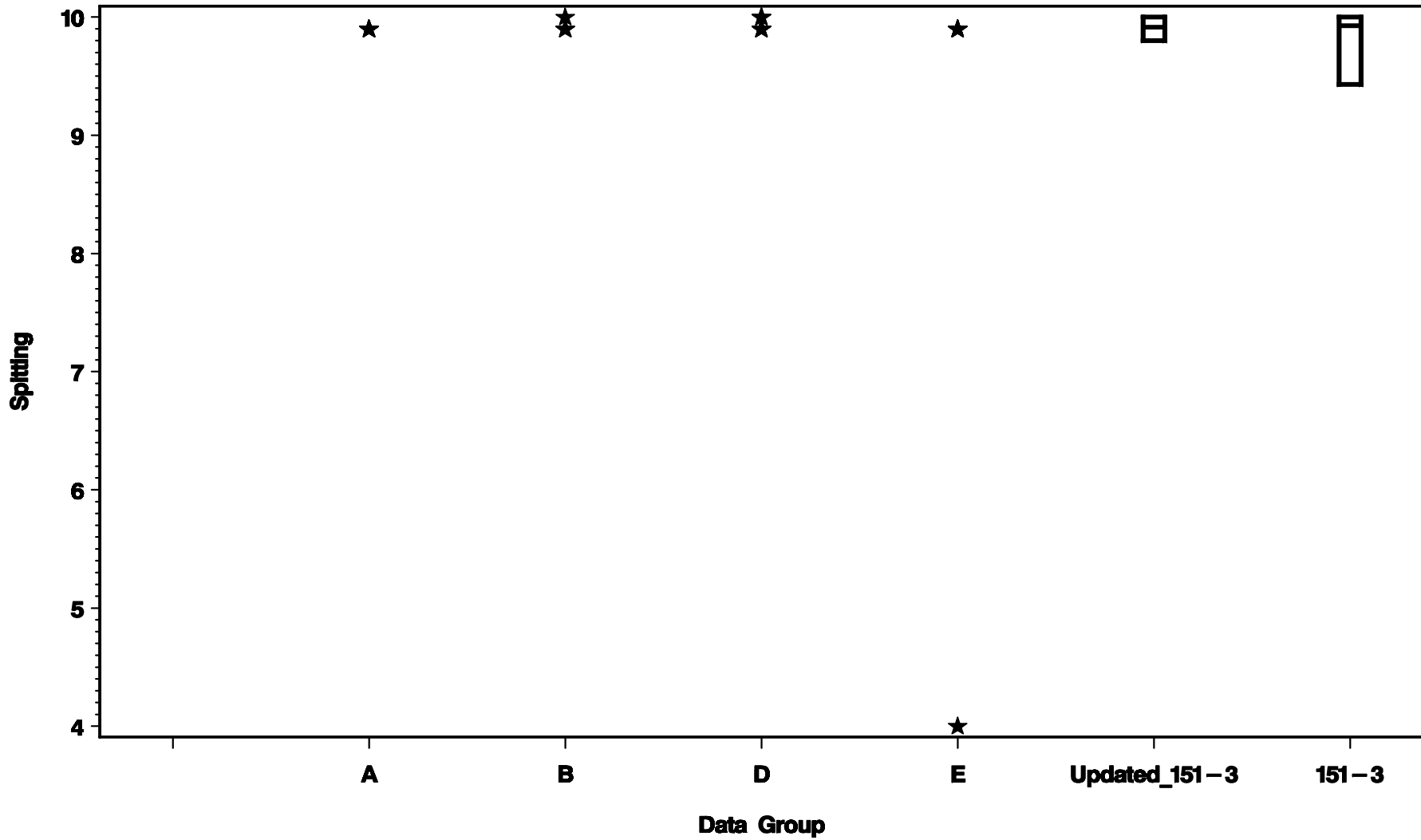


L-37 Lubrified Hardware, Pinion Batch V1L417/P4L792

Updated Test Target Data Set and Shewhart Severity Limits

Reference Oil 151-3 (Bands Include Merit Ratings of 9.8 Thru 10)

Pinion Spitting

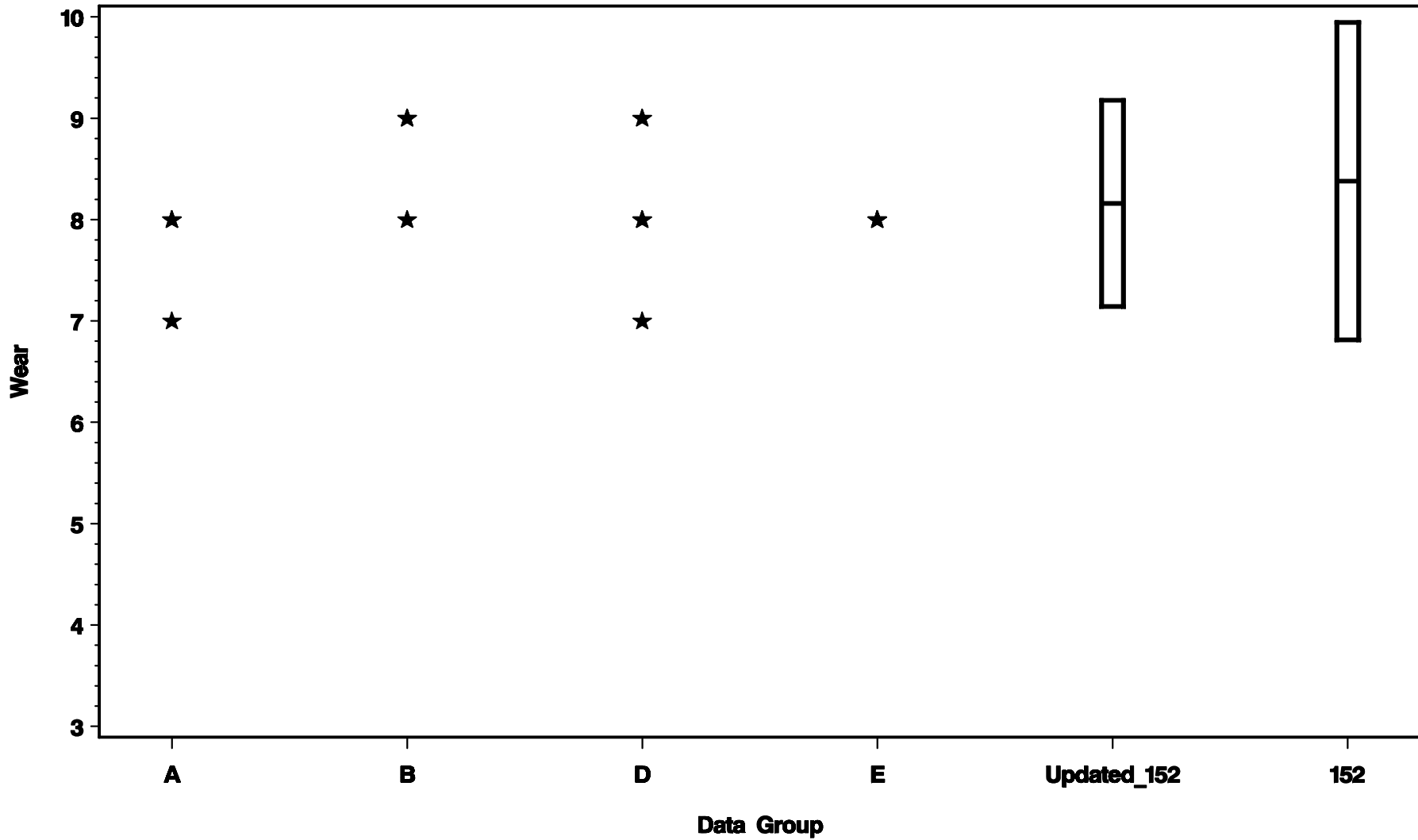


L-37 Non-lubrited Hardware, Pinion Batch V1L417/P4L792

Updated Test Target Data Set and Shewhart Severity Limits

Reference Oil 152 (Bands Include Merit Ratings of 8 & 9)

Pinion Wear

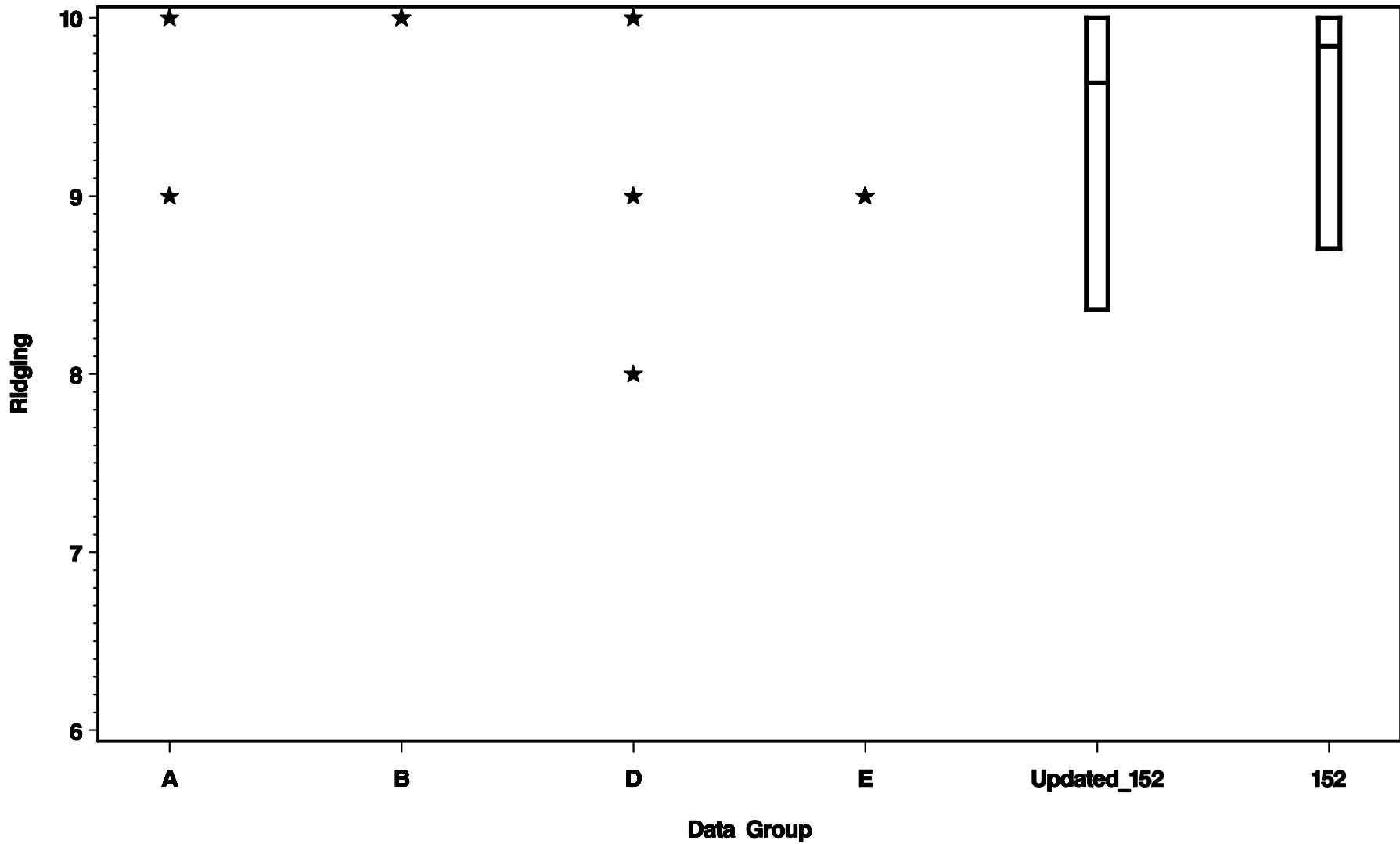


L-37 Non-lubricated Hardware, Pinion Batch V1L417/P4L792

Updated Test Target Data Set and Shewhart Severity Limits

Reference Oil 152 (Bands Include Merit Ratings of 9 & 10)

Pinion Ridging

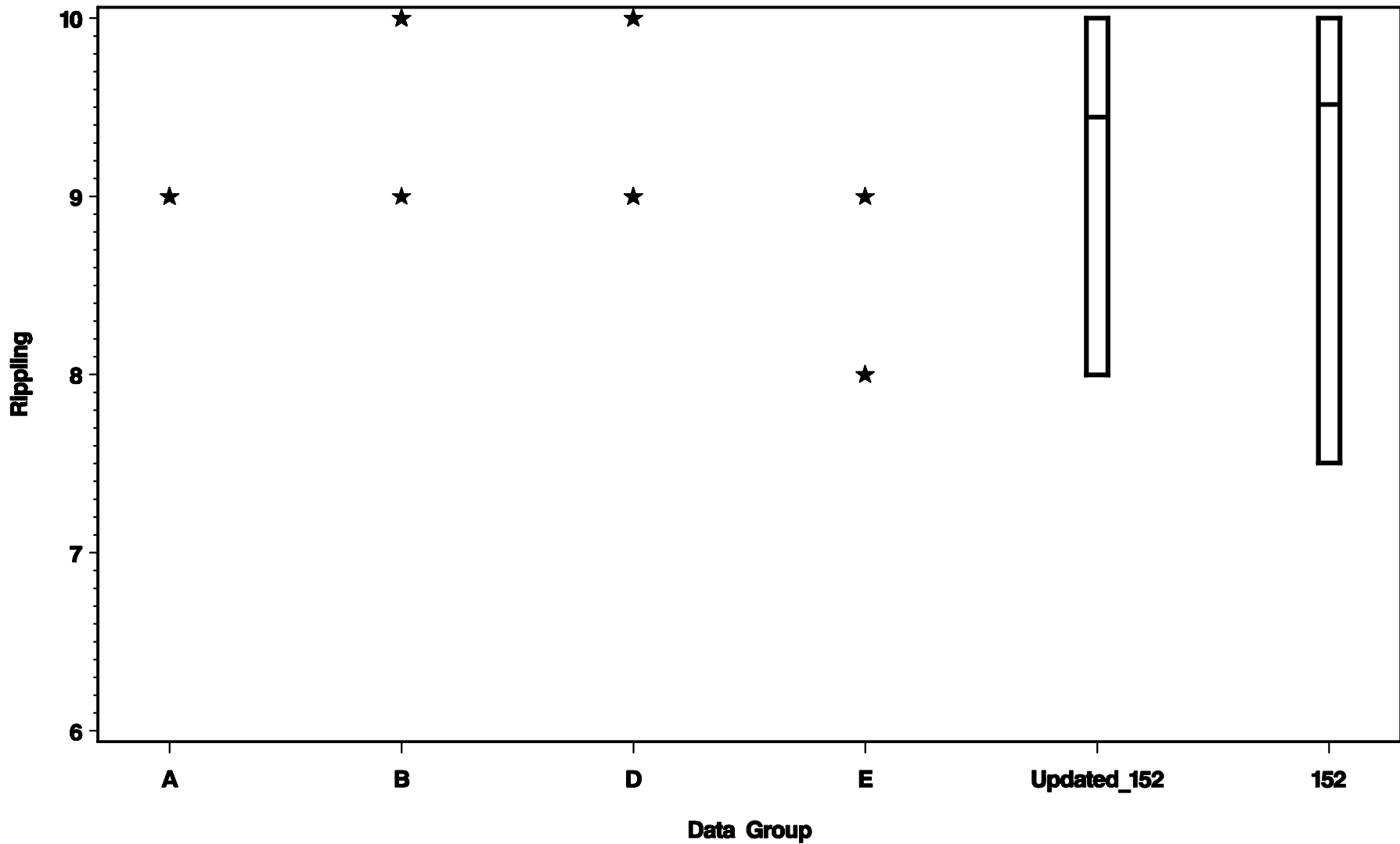


L-37 Non-lubrited Hardware, Pinion Batch V1L417/P4L792

Updated Test Target Data Set and Shewhart Severity Limits

Reference Oil 152 (Bands Include Merit Ratings of 8, 9, & 10)

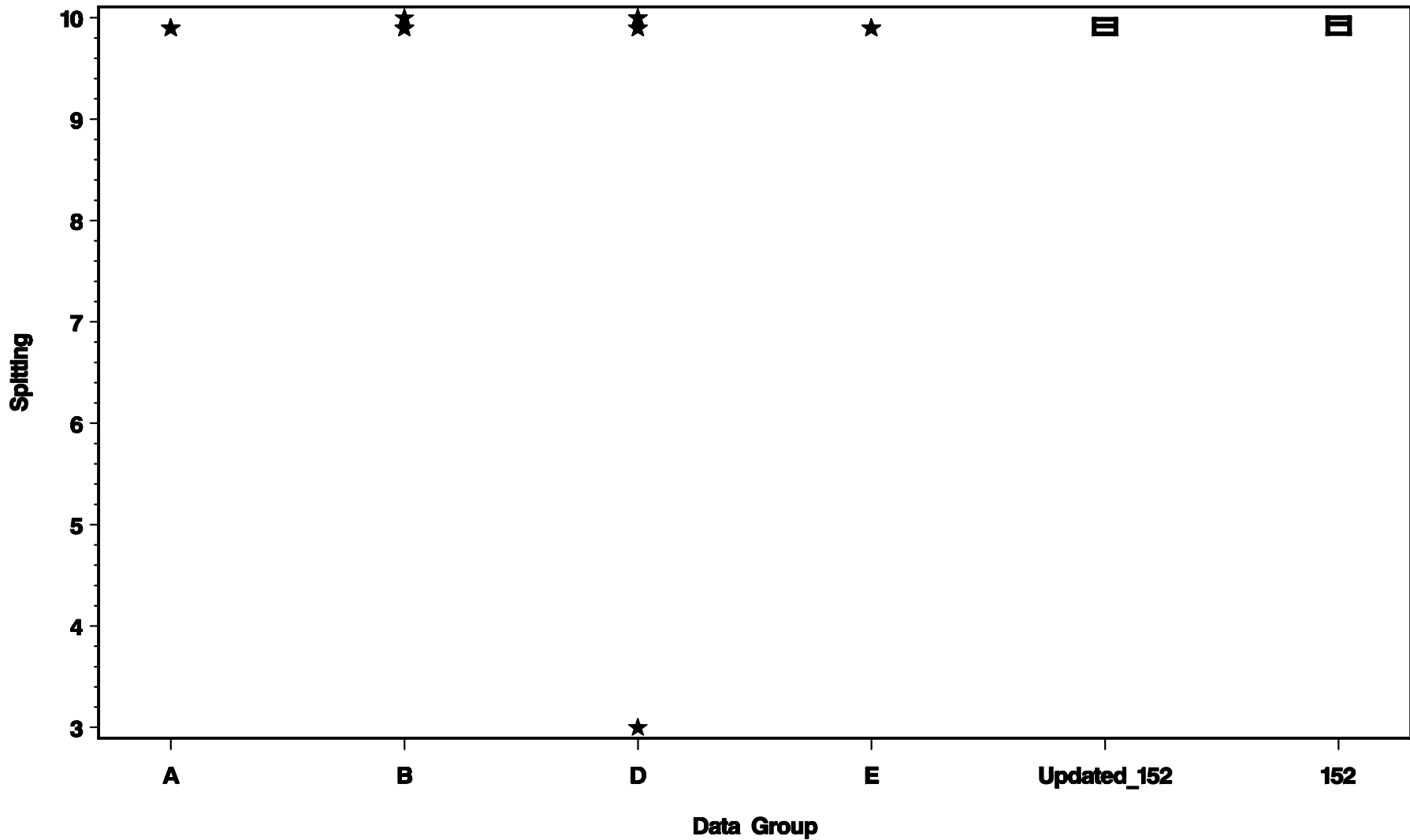
Pinion Rippling



L-37 Lubrited Hardware, Pinion Batch V1L417/P4L792
Updated Test Target Data Set and Shewhart Severity Limits

Reference Oil 152 (Bands Include Merit Ratings of 9.9 Thru 10)

Pinion Spitting

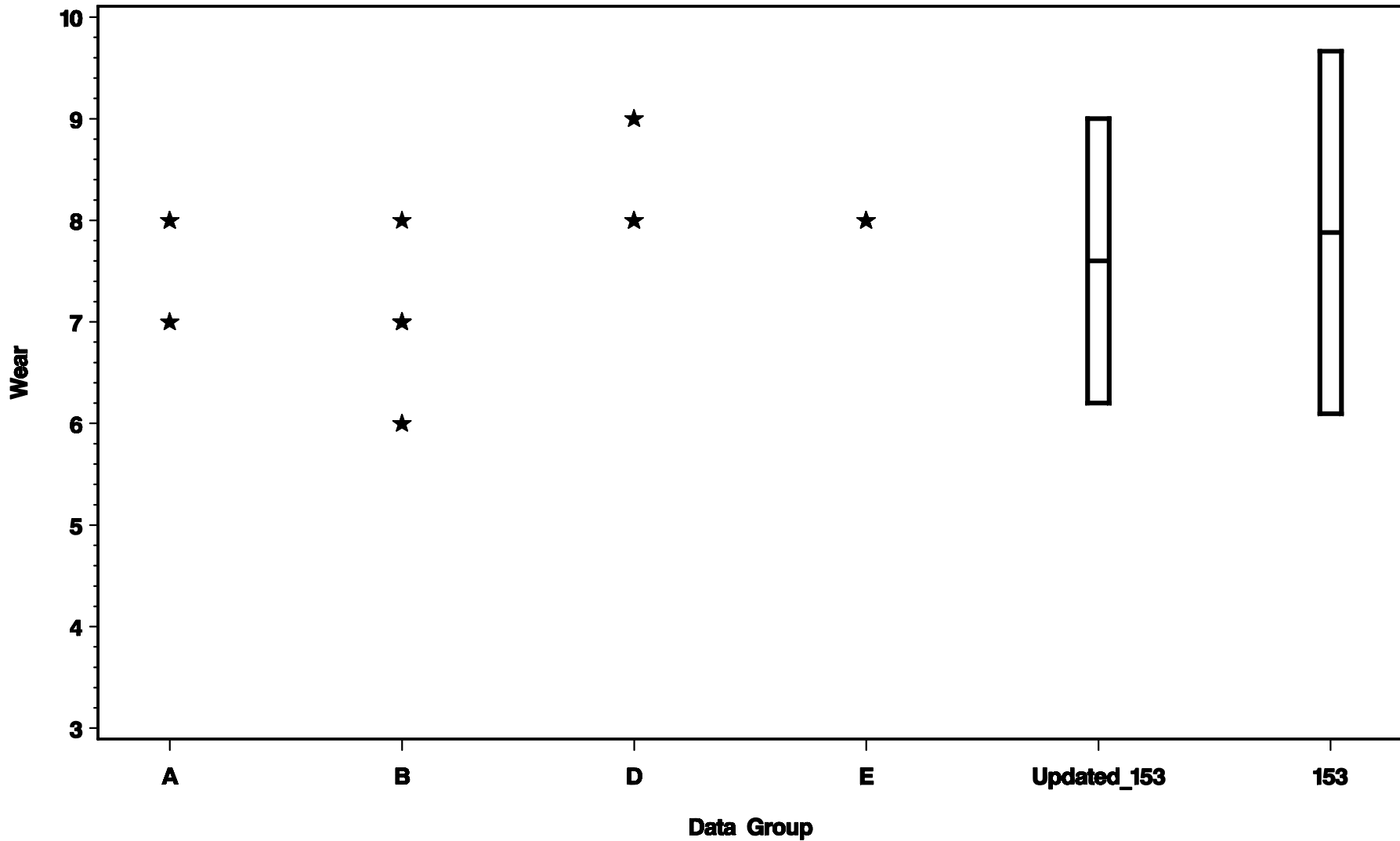


L-37 Non-lubricated Hardware, Pinion Batch V1L417/P4L792

Updated Test Target Data Set and Shewhart Severity Limits

Reference Oil 153 (Bands Include Merit Ratings of 7, 8, & 9)

Pinion Wear

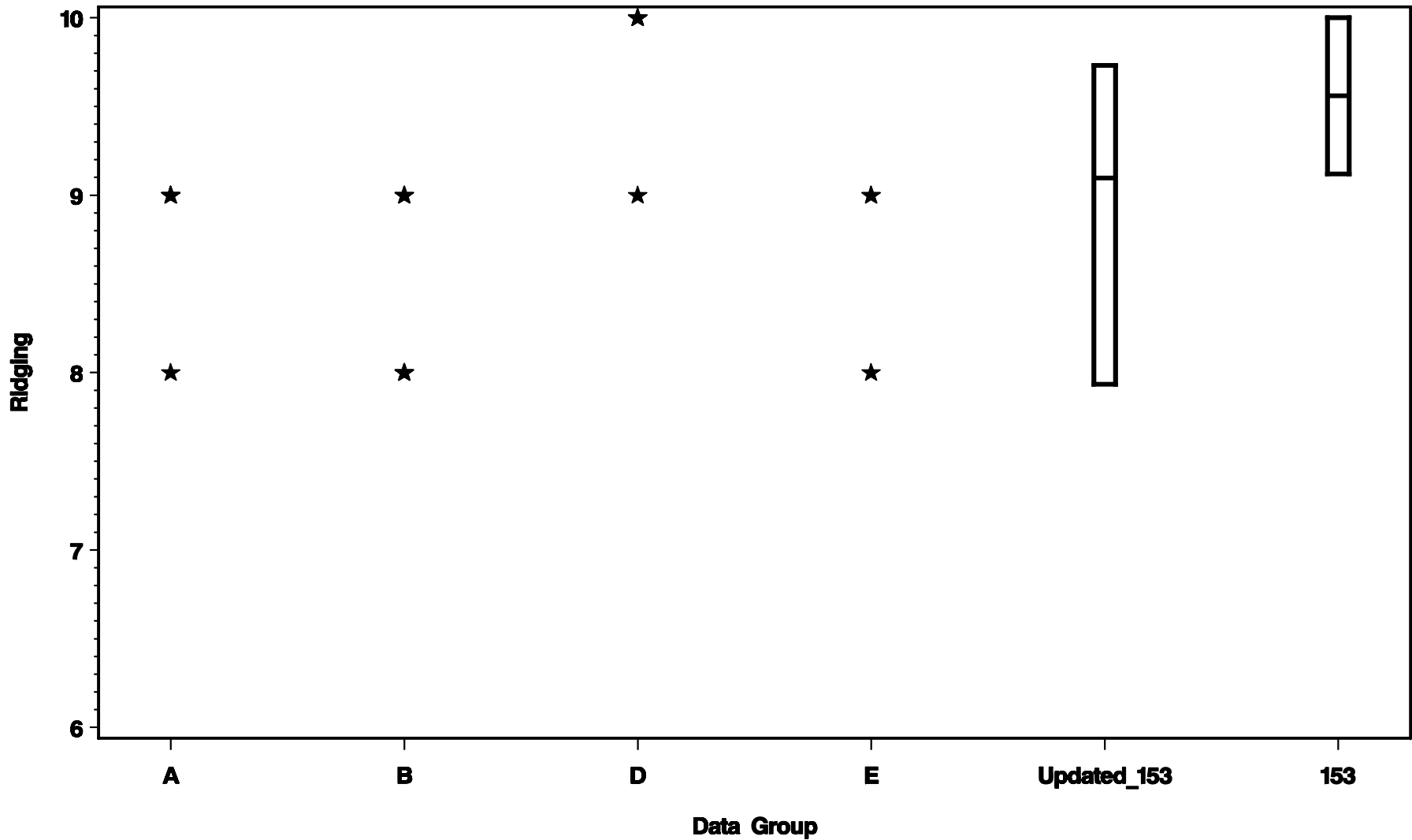


L-37 Non-lubricated Hardware, Pinion Batch V1L417/P4L792

Updated Test Target Data Set and Shewhart Severity Limits

Reference Oil 153 (Bands include Merit Ratings of 8 & 9)

Pinion Ridging

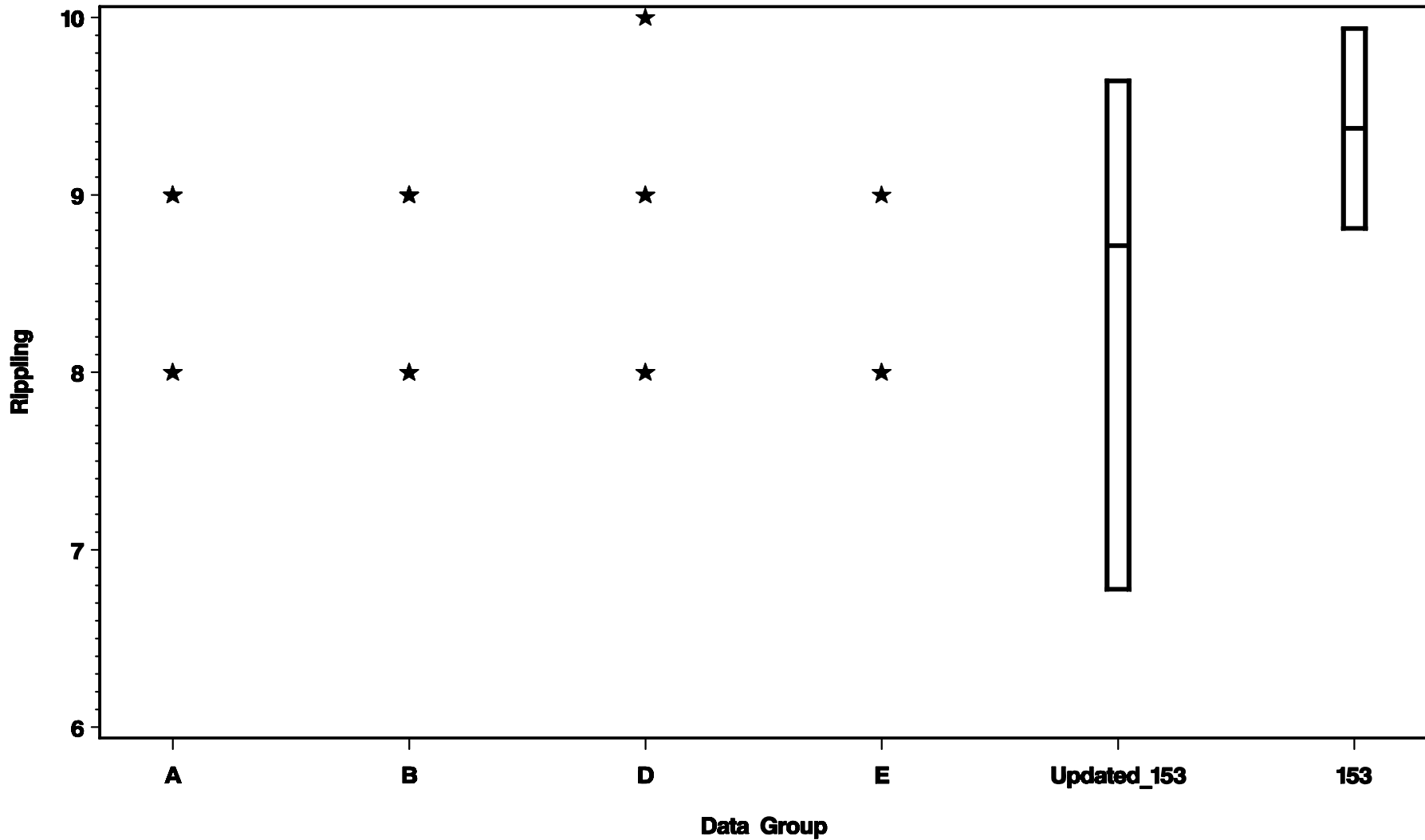


L-37 Non-lubricated Hardware, Pinion Batch V1L417/P4L792

Updated Test Target Data Set and Shewhart Severity Limits

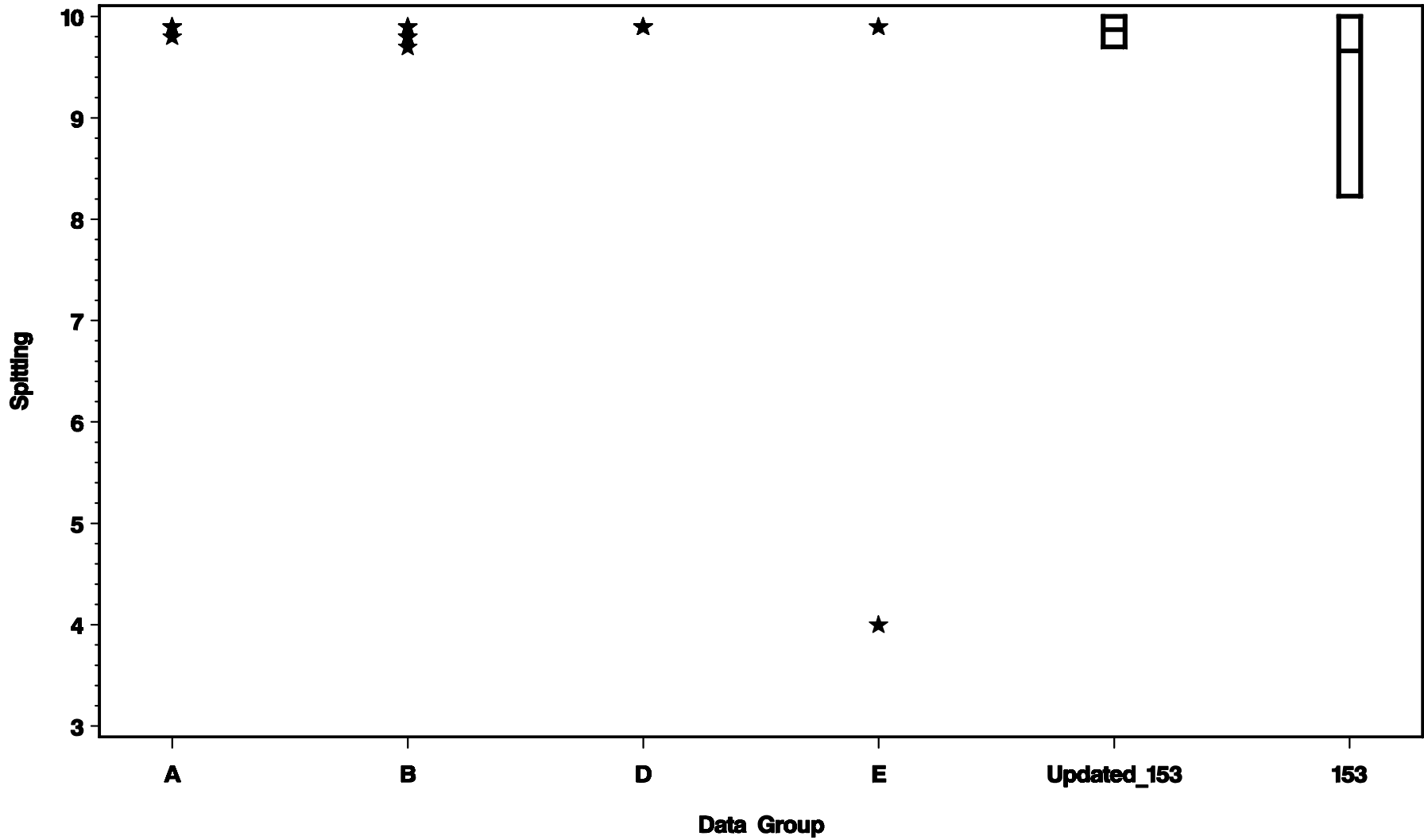
Reference Oil 153 (Bands Include Merit Ratings of 7, 8, & 9)

Pinion Rippling



L-37 Lubrited Hardware, Pinion Batch V1L417/P4L792
Updated Test Target Data Set and Shewhart Severity Limits
Reference Oil 153 (Bands Include Merit Ratings of 9.7 Thru 10)

Pinion Spitting



V1L417/P7L792 UPDATED REFERENCE OIL TARGETS DATA

TESTKEY	LAB	IND	VAL	PINBAT	DTCOMP	WEAR	RIDG	RIPP	SPIT
53460	E	151-3	AG	V1L417	20060124	6.0	9.0	8.0	9.9
56556	B	151-3	AG	V1L417	20060124	8.0	10.0	10.0	10.0
53444	D	151-3	AG	V1L417	20060126	9.0	10.0	10.0	9.9
50356	A	151-3	AG	V1L417	20060128	8.0	10.0	9.0	9.9
56557	B	151-3	AG	V1L417	20060325	8.0	10.0	10.0	9.9
55506	E	151-3	AG	V1L417	20060330	8.0	9.0	8.0	9.9
53445	D	151-3	AG	V1L417	20060403	8.0	10.0	10.0	10.0
54426	A	151-3	AG	V1L417	20060412	8.0	10.0	9.0	9.9
55181	D	151-3	AC	V1L417	20060909	7.0	9.0	10.0	9.9
58297	E	151-3	AC	V1L417	20061222	8.0	10.0	9.0	9.9
58312	A	151-3	AC	V1L417	20070531	8.0	10.0	9.0	9.9
58158	D	151-3	AC	V1L417	20070615	8.0	10.0	10.0	10.0
58286	B	151-3	AC	V1L417	20070731	8.0	9.0	10.0	9.9
58159	D	151-3	AC	V1L417	20070819	8.0	9.0	10.0	10.0
58298	E	151-3	AC	V1L417	20070919	7.0	10.0	9.0	9.9
58313	A	151-3	AC	V1L417	20071110	8.0	9.0	10.0	9.9
58287	B	151-3	AC	V1L417	20080127	8.0	10.0	10.0	9.9
58161	D	151-3	AC	V1L417	20080221	9.0	9.0	9.0	9.9
58166	D	151-3	AC	V1L417	20080512	9.0	9.0	9.0	9.9
65721	A	151-3	AC	V1L417	20080724	8.0	9.0	9.0	9.9
58299	E	151-3	OC	V1L417	20080726	8.0	9.0	9.0	4.0
65760	E	151-3	OC	V1L417	20080730	8.0	10.0	9.0	9.9
65761	E	151-3	AC	V1L417	20080806	8.0	10.0	9.0	9.9
58163	D	151-3	OC	V1L417	20080815	8.0	9.0	9.0	9.9

55496	B	152	AG	V1L417	20060214	9.0	10.0	10.0	9.9
53557	A	152	AG	V1L417	20060217	8.0	10.0	9.0	9.9
53558	A	152	AG	V1L417	20060218	8.0	10.0	9.0	9.9
56536	D	152	AG	V1L417	20060224	8.0	10.0	10.0	10.0
58301	E	152	AG	V1L417	20060310	8.0	9.0	8.0	9.9
58289	B	152	AG	V1L417	20060330	9.0	10.0	10.0	10.0
58302	E	152	AG	V1L417	20060331	8.0	9.0	8.0	9.9
58274	D	152	AG	V1L417	20060405	9.0	10.0	10.0	10.0
58304	E	152	AC	V1L417	20061223	8.0	9.0	9.0	9.9
58277	D	152	AC	V1L417	20070403	9.0	9.0	10.0	9.9
59301	B	152	AC	V1L417	20070510	8.0	10.0	9.0	9.9
61860	A	152	AC	V1L417	20070909	7.0	9.0	9.0	9.9
59310	E	152	AC	V1L417	20080129	8.0	9.0	9.0	9.9
61861	A	152	AC	V1L417	20080318	8.0	9.0	9.0	9.9
63266	B	152	AC	V1L417	20070919	9.0	10.0	10.0	9.9
61850	D	152	AC	V1L417	20071024	8.0	9.0	9.0	9.9
65764	B	152	AC	V1L417	20080328	8.0	10.0	10.0	9.9
61851	D	152	OC	V1L417	20080501	7.0	8.0	9.0	3.0
63259	D	152	AC	V1L417	20080703	8.0	10.0	9.0	9.9

TESTKEY	LAB	IND	VAL	PINBAT	DTCOMP	WEAR	RIDG	RIPP	SPIT
55498	B	153	AG	V1L417	20060217	6.0	8.0	8.0	9.8
56537	D	153	AG	V1L417	20060227	9.0	10.0	10.0	9.9
53555	E	153	AG	V1L417	20060301	8.0	9.0	8.0	4.0
53560	A	153	AG	V1L417	20060309	8.0	9.0	9.0	9.9
58306	E	153	AG	V1L417	20060405	8.0	8.0	8.0	9.9
58293	B	153	AG	V1L417	20060405	7.0	8.0	9.0	9.8
53562	A	153	AG	V1L417	20060406	8.0	9.0	9.0	9.9
58279	D	153	AG	V1L417	20060416	9.0	10.0	8.0	9.9
58281	D	153	AC	V1L417	20070110	8.0	10.0	8.0	9.9
59302	B	153	AC	V1L417	20070124	7.0	8.0	8.0	9.8
59313	E	153	AC	V1L417	20070505	8.0	9.0	9.0	9.9
61863	A	153	AC	V1L417	20070708	7.0	9.0	8.0	9.9
63268	B	153	AC	V1L417	20071020	7.0	8.0	9.0	9.9
64141	D	153	AC	V1L417	20071208	8.0	10.0	9.0	9.9
63269	B	153	AC	V1L417	20071218	7.0	9.0	9.0	9.7
64179	A	153	AC	V1L417	20080116	8.0	8.0	8.0	9.9
64142	D	153	OC	V1L417	20080510	8.0	9.0	9.0	9.9
64180	A	153	AC	V1L417	20080521	7.0	9.0	9.0	9.8
67312	B	153	OC	V1L417	20080717	6.0	9.0	8.0	9.9
67313	B	153	AC	V1L417	20080720	8.0	9.0	9.0	9.9