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

MEMORANDUM: 05-038

DATE: May 20, 2005

TO: L-37 Surveillance Panel

FROM: Donald Lind

SUBJECT: Updated Reference Oil Test Targets for Gear Batch V1L176/P4L741A

At the May 18, 2005 L-37 Surveillance Panel Teleconference Meeting, the panel approved the updated reference oil test targets for non-lubrited hardware, gear batch V1L176/P4L741A. The approved reference oil targets, plots and data are attached.

These targets are effective for all tests completed on or after May 19, 2005.

DML/dml

Attachments

c: ftp://ftp.astmtmc.cmu.edu/docs/gear/l37/memos/mem05-038.pdf

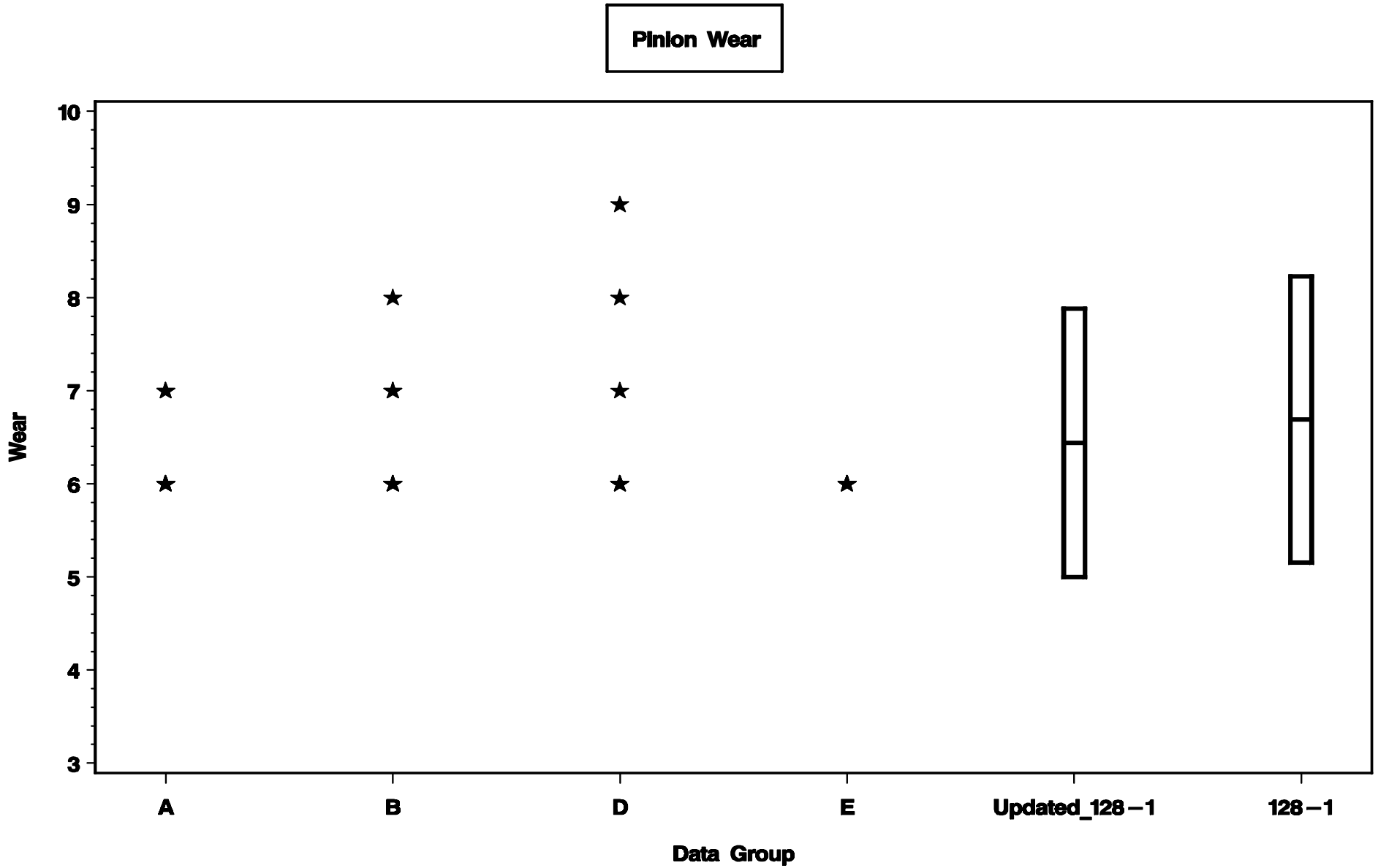
Distribution: Electronic Mail

NON-LUBRITED HARDWARE							
GEAR BATCH V1L176/P4L741A							
PINION TEST TARGETS							
	Reference Oil 128-1 [A]				Reference Oil 151-3		
	N	Mean	Standard Deviation		N	Mean	Standard Deviation
WEAR	27	6.44	0.801		21	6.67	0.577
RIDGING	27	-0.789	0.3247		21	-0.237	0.5170 [B]
RIPPLING	27	-1.042	0.6358		8 [C]	-0.121 [C]	0.4696 [C]
SPITTING	27	0.355	0.3035		21	0.399	0.5287

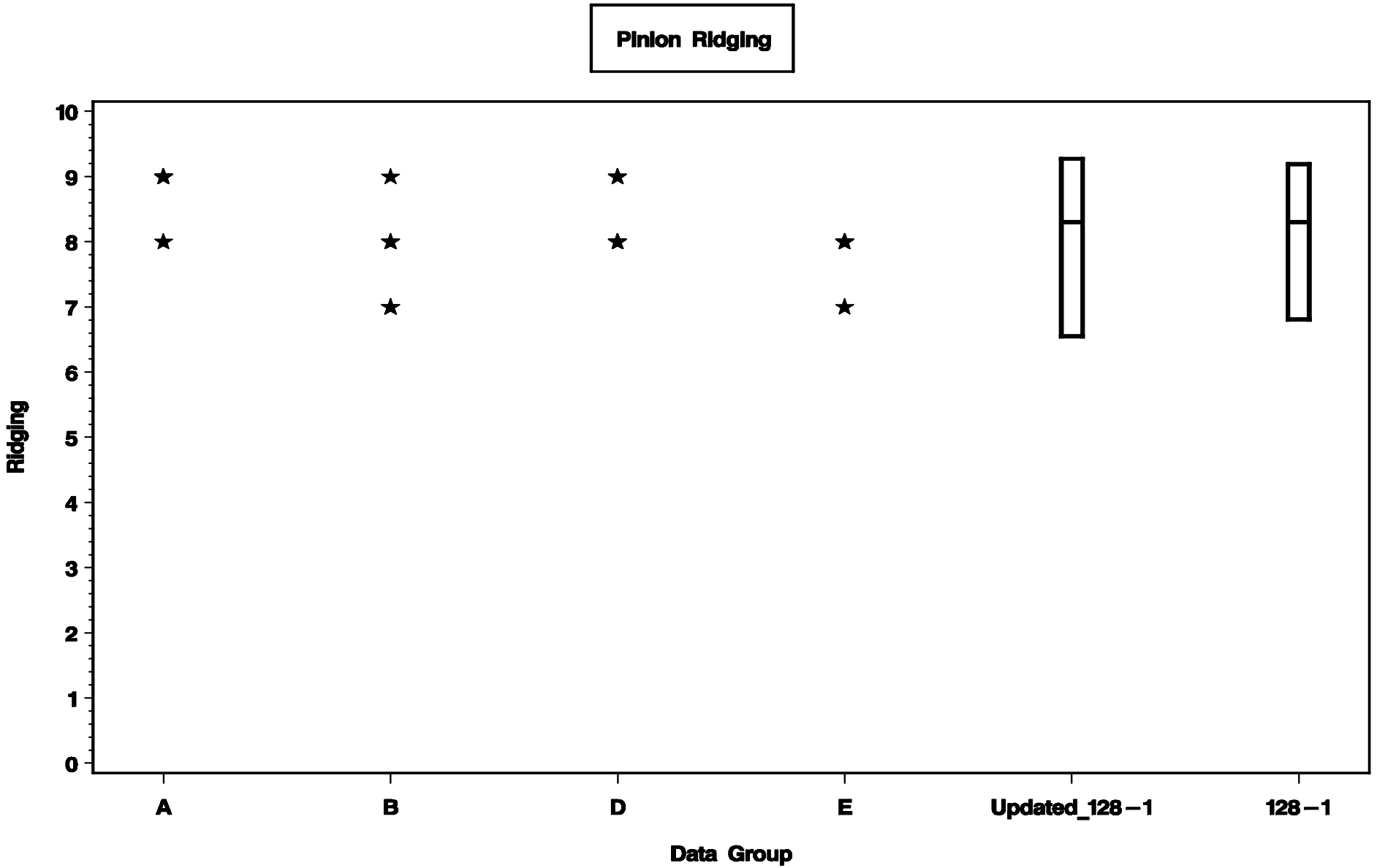
NON-LUBRITED HARDWARE							
GEAR BATCH V1L176/P4L741A							
RING TEST TARGETS							
	Reference Oil 128-1 [A]				Reference Oil 151-3		
	N	Mean	Standard Deviation		N	Mean	Standard Deviation
WEAR	27	7.78	0.892		21	7.95	0.805
RIDGING	27	-0.212	0.6348		21	0.512	0.4644
RIPPLING	27	0.286	0.5406		21	-0.092	0.5086
SPITTING	27	0.517	0.3141		21	0.598	0.0933

[A] Use Reference oil 128-1 targets for reference oil 128-2.
[B] Adjusted Standard Deviation to Include a merit rating of 10.
[C] Surveillance panel agreed to not use the updated targets as they felt the old targets were more appropriate.

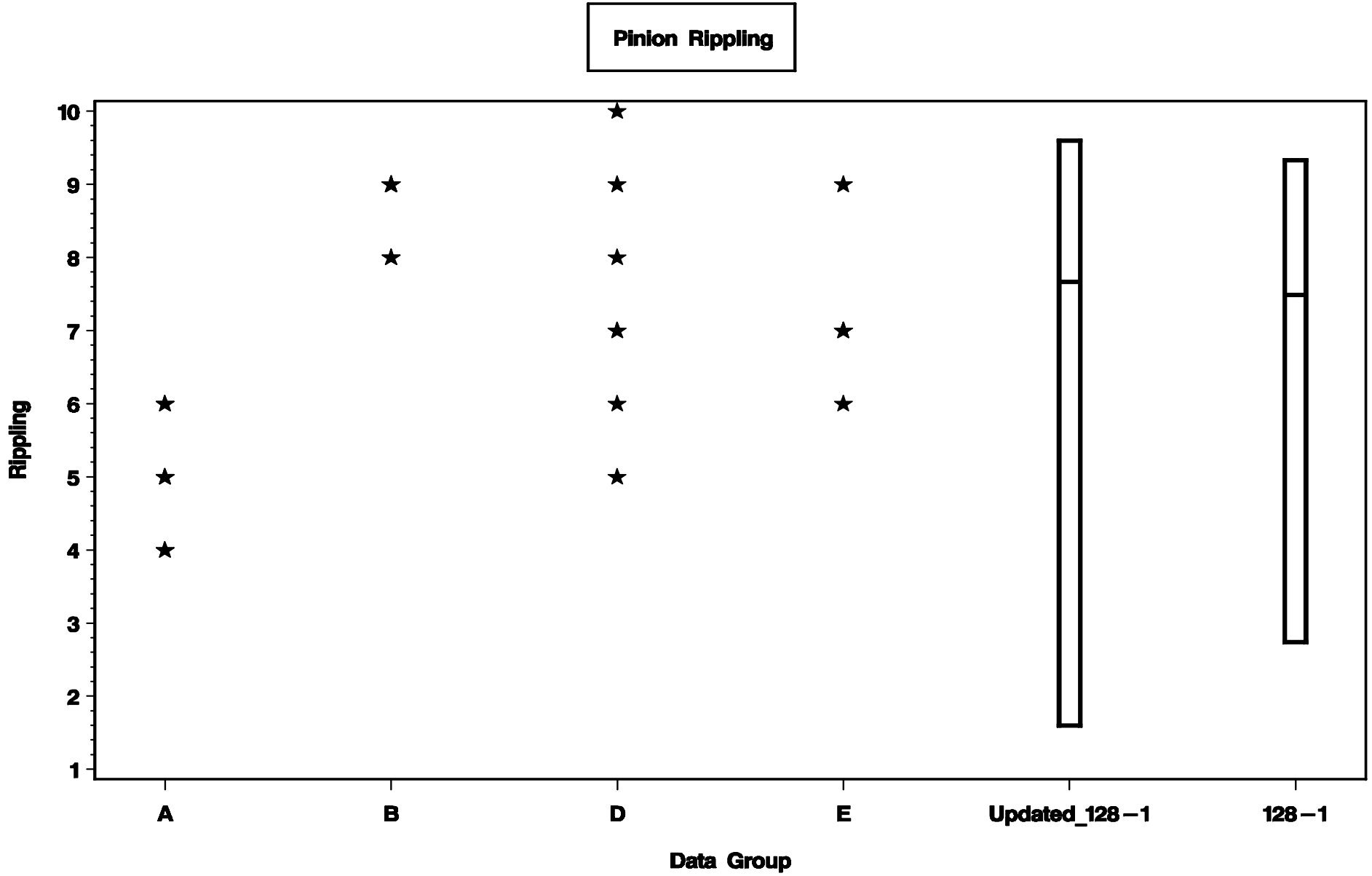
L−37 Non−lubrited Hardware, Pinion Batch V1L176/P4L741A
Updated Test Target Data Set and Shewhart Severity Limits
Reference OII 128−1 (Bands Include Merit Ratings of 5, 6, & 7)



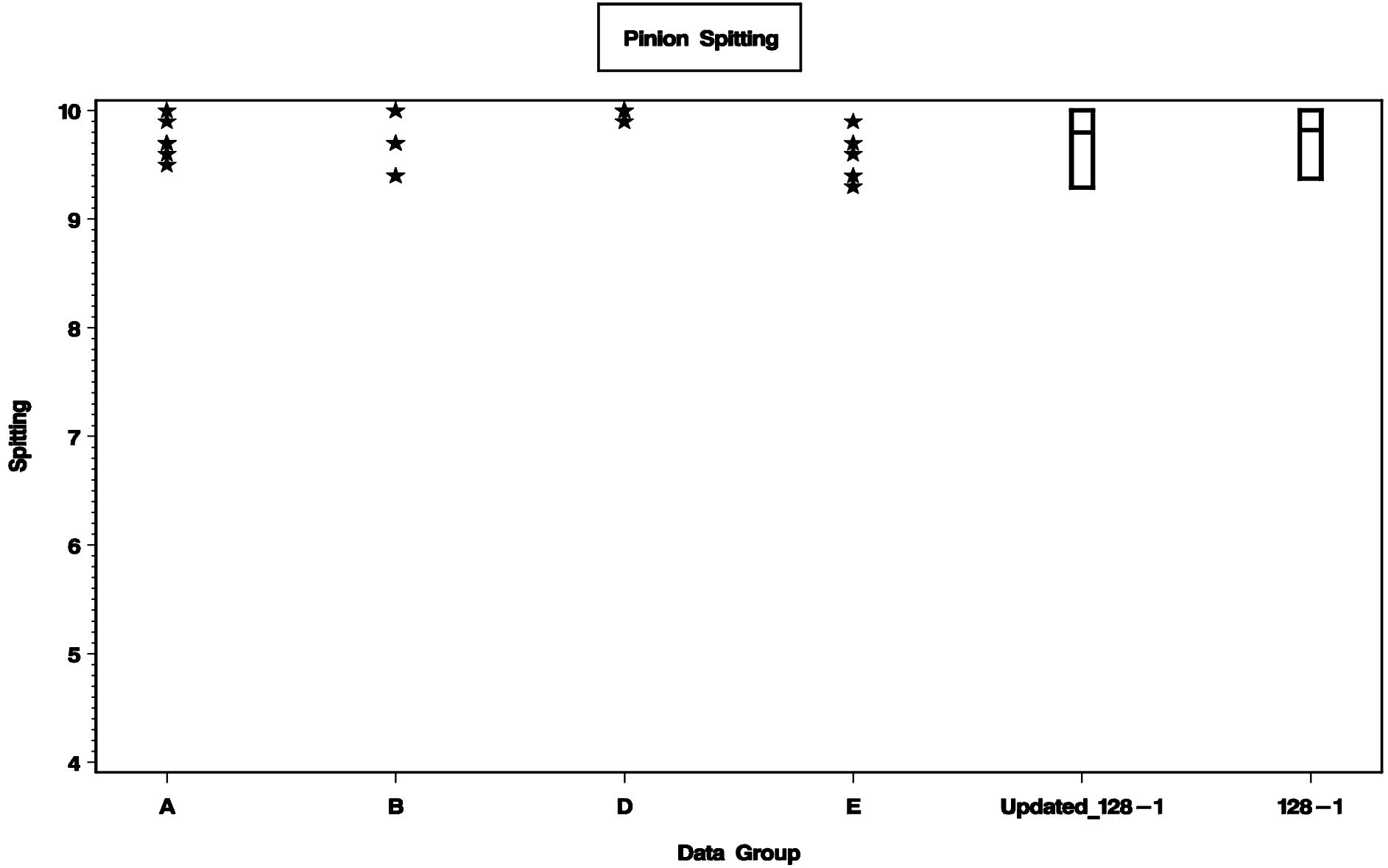
L−37 Non−lubrited Hardware, Pinion Batch V1L176/P4L741A
Updated Test Target Data Set and Shewhart Severity Limits
Reference OII 128−1 (Bands Include Merit Ratings of 7, 8, & 9)



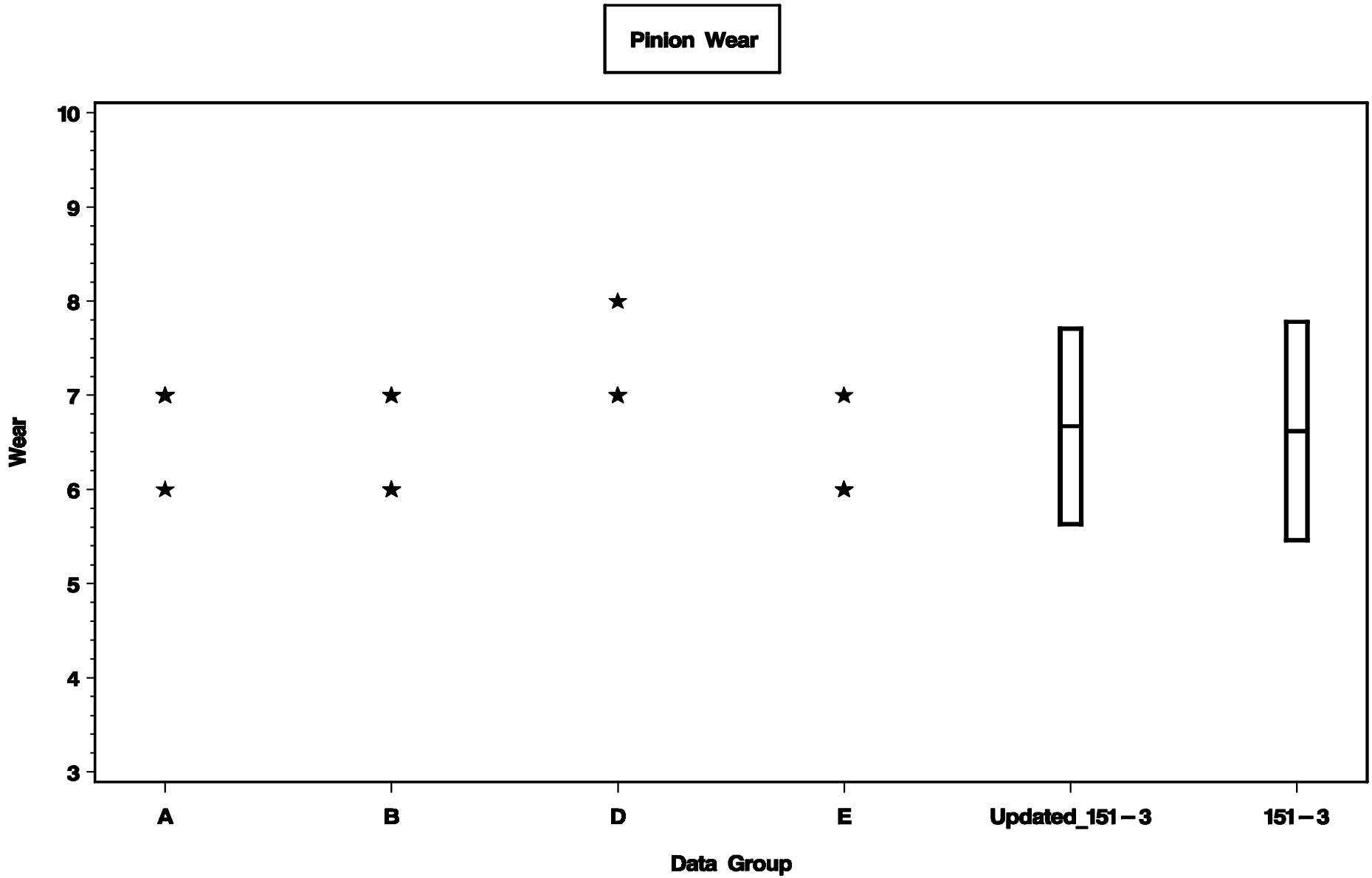
L-37 Non-lubrited Hardware, Pinion Batch V1L176/P4L741A
Updated Test Target Data Set and Shewhart Severity Limits
Reference Oil 128-1 (Bands Include Merit Ratings of 2 thru 9)



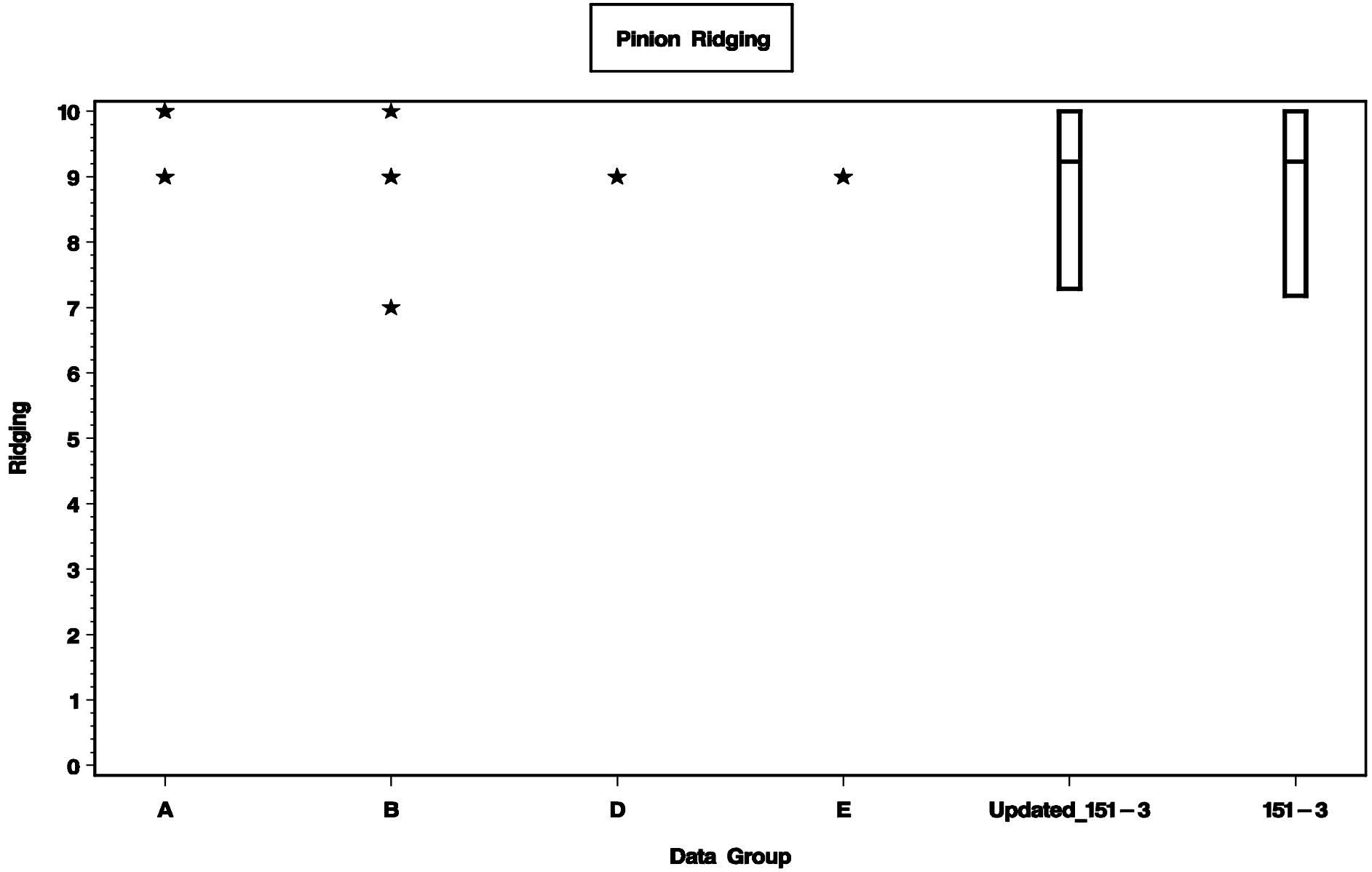
L−37 Non−lubrited Hardware, Pinion Batch V1L176/P4L741A
Updated Test Target Data Set and Shewhart Severity Limits
Reference Oil 128−1 (Bands Include Merit Ratings of 9.3 Thru 10)



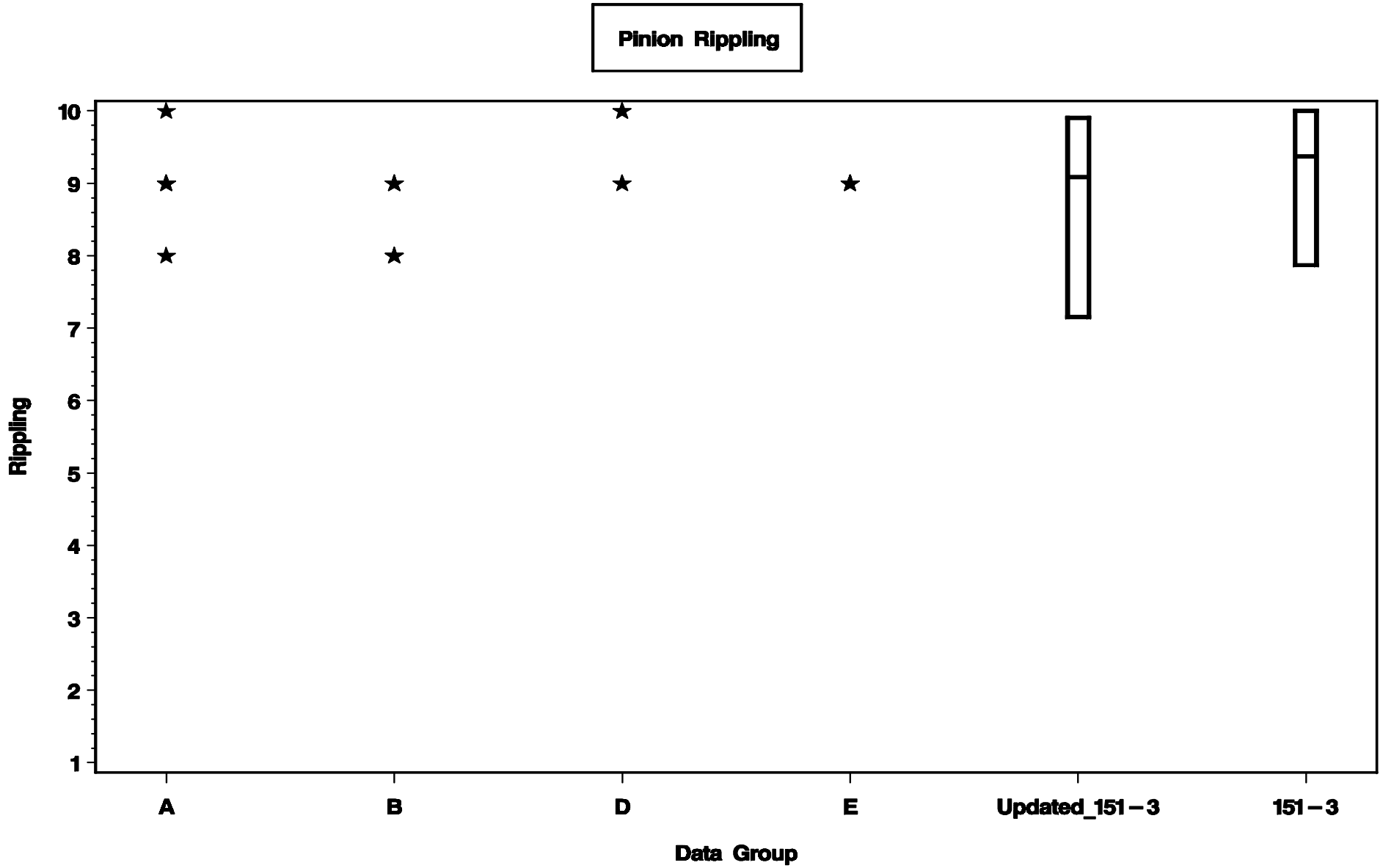
L-37 Non-lubrited Hardware, Pinion Batch V1L176/P4L741A
Updated Test Target Data Set and Shewhart Severity Limits
Reference Oil 151-3 (Bands Include Merit Ratings of 6, & 7)



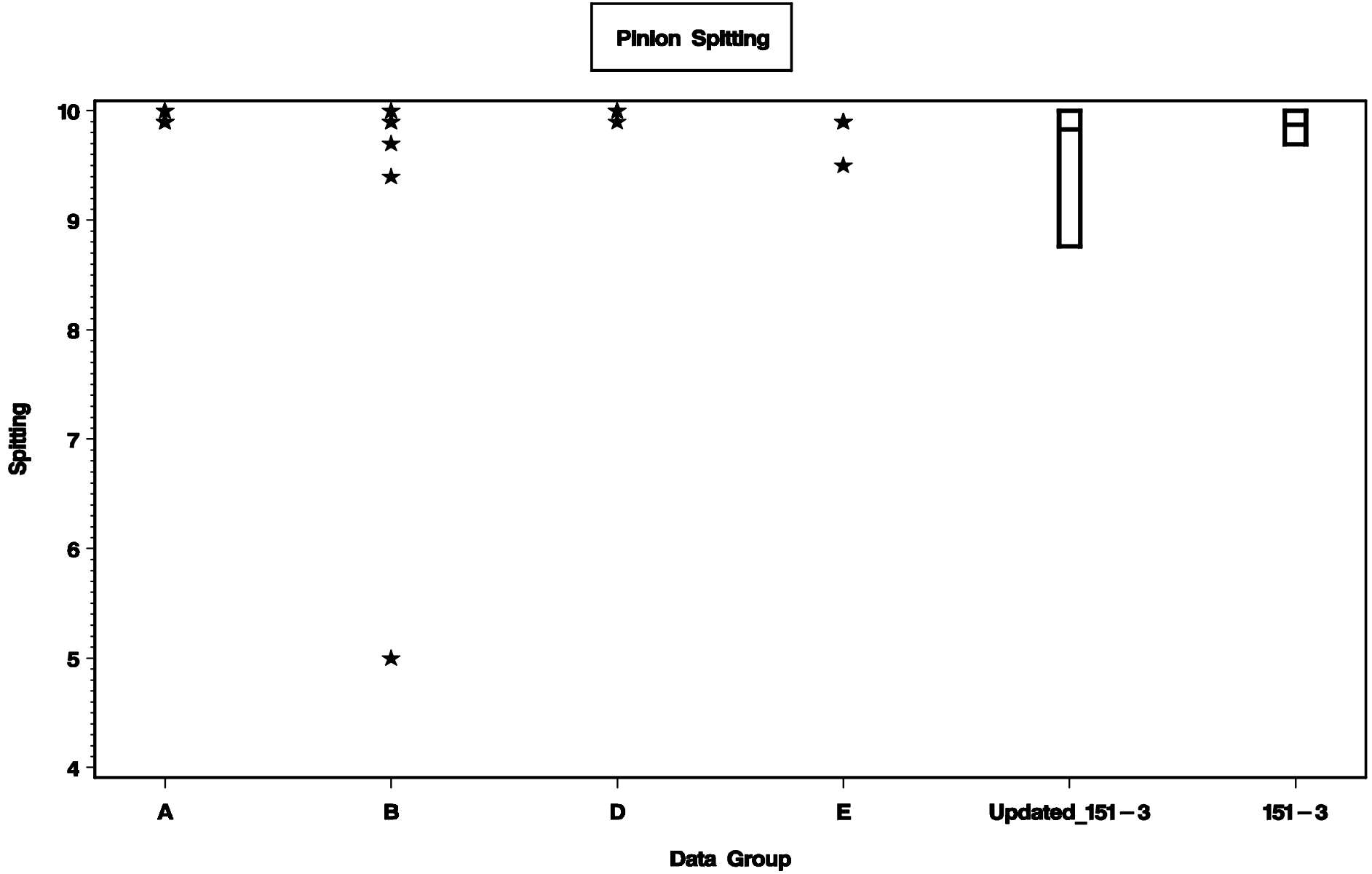
L−37 Non−lubrited Hardware, Pinion Batch V1L176/P4L741A
Updated Test Target Data Set and Shewhart Severity Limits
Reference Oil 151−3 (Bands Include Merit Ratings of 8, 9, & 10)



L-37 Non-lubrited Hardware, Pinion Batch V1L176/P4L741A
Updated Test Target Data Set and Shewhart Severity Limits
Reference Oil 151-3 (Bands Include Merit Ratings of 8 & 9)



L−37 Non−lubrited Hardware, Pinion Batch V1L176/P4L741A
Updated Test Target Data Set and Shewhart Severity Limits
Reference Oil 151−3 (Bands Include Merit Ratings of 9.0 Thru 10)



CMIR	Lab	Std.	Run	Oil	PINBAT	RINGBAT	DTCOMP	Pwear	Pridg	Pripp	Pspit	Rwear	Rridg	Rripp	Rspit	lpcrat	fpcrat
38870	D	3	782	128-1	V1L176	P4L741A	20020508	8	9	7	10	9	10	10	10	2	1
44304	D	3	783	128-1	V1L176	P4L741A	20020509	7	9	10	10	9	10	10	10	2	0
44309	D	3	818	128-1	V1L176	P4L741A	20020725	9	8	6	10	9	9	10	10	2	0
44310	D	3	819	128-1	V1L176	P4L741A	20020726	6	8	8	10	9	9	10	10	2	0
44313	D	3	915	128-1	V1L176	P4L741A	20030314	6	9	9	10	9	10	10	10	3	0
46781	D	3	916	128-1	V1L176	P4L741A	20030325	6	8	7	9.9	8	9	9	9.9	2	0
46782	D	3A	3	128-1	V1L176	P4L741A	20030819	6	8	5	9.9	8	10	10	10	2	1
39382	B	191	1614	128-1	V1L176	P4L741A	20020505	6	7	8	9.7	7	9	9	9.8	2	1
39384	B	191	1616	128-1	V1L176	P4L741A	20020507	8	9	8	10	9	10	10	10	2	1
44280	B	191	1662	128-1	V1L176	P4L741A	20020713	7	7	9	10	7	8	9	9.9	2	0
39386	B	191	1664	128-1	V1L176	P4L741A	20020715	6	7	9	9.4	7	8	9	8	2	1
44282	B	191	1797	128-1	V1L176	P4L741A	20030515	7	8	9	10	8	9	10	10	2	0
46778	B	191	1891	128-1	V1L176	P4L741A	20031213	6	7	9	9.7	8	9	10	9.9	2	0
46935	B	191	1921	128-1	V1L176	P4L741A	20040425	6	8	9	9.4	8	9	10	9.9	2	-1
50341	B	191	1941	128-1	V1L176	P4L741A	20040603	6	8	9	9.7	7	9	10	10	2	0
37044	E	1	698	128-1	V1L176	P4L741A	20020507	6	8	7	9.4	7	8	9	9.9	2	0
39837	E	1	699	128-1	V1L176	P4L741A	20020508	6	8	7	9.6	7	8	9	9.9	2	0
39838	E	1	712	128-1	V1L176	P4L741A	20020618	6	8	7	9.9	7	8	9	9.9	2	-1
39839	E	1	715	128-1	V1L176	P4L741A	20020625	6	8	6	9.3	7	8	9	9.9	2	1
51853	E	2	6	128-1	V1L176	P4L741A	20040804	6	7	9	9.7	7	8	9	9.9	2	0
39396	A	2	2461	128-1	V1L176	P4L741A	20020507	7	9	6	10	6	10	10	10	2	0
39397	A	2	2462	128-1	V1L176	P4L741A	20020508	7	9	4	9.7	7	9	10	9.9	2	1
39399	A	2	2484	128-1	V1L176	P4L741A	20020628	6	8	5	9.6	8	9	10	9.9	2	0
39400	A	2	2488	128-1	V1L176	P4L741A	20020710	6	9	5	9.9	9	9	10	9.7	2	0
46802	A	2	2652	128-1	V1L176	P4L741A	20031126	6	9	4	9.7	7	9	10	10	2	0
46799	A	2	2695	128-1	V1L176	P4L741A	20040330	6	9	5	9.7	8	10	9	10	2	1
50349	A	2	2784	128-1	V1L176	P4L741A	20041201	6	9	6	9.5	8	10	10	9.8	3	0
39376	D	3	784	151-3	V1L176	P4L741A	20020510	7	9	10	10	9	10	10	10	2	1
39377	D	3	815	151-3	V1L176	P4L741A	20020722	7	9	10	10	9	10	10	10	2	0
42490	D	3	907	151-3	V1L176	P4L741A	20030215	8	9	9	10	9	10	10	10	2	1
49502	D	3A	71	151-3	V1L176	P4L741A	20040114	7	9	9	9.9	9	10	10	10	2	0
39383	B	191	1617	151-3	V1L176	P4L741A	20020509	6	7	8	9.4	8	8	9	9.9	2	1
39388	B	191	1665	151-3	V1L176	P4L741A	20020717	7	9	8	10	8	10	9	9.9	2	1
46084	B	191	1856	151-3	V1L176	P4L741A	20030813	6	9	9	9.9	8	10	9	10	2	0
50346	B	191	1919	151-3	V1L176	P4L741A	20040418	6	9	9	5	7	10	9	9.9	2	0
50347	B	191	1920	151-3	V1L176	P4L741A	20040423	7	9	8	9.7	8	10	9	9.9	2	-1
51846	B	191	1993	151-3	V1L176	P4L741A	20040914	6	10	9	9.9	8	10	9	9.9	2	0
51849	B	286	27	151-3	V1L176	P4L741A	20041219	7	9	9	10	7	10	9	10	2	0
37583	E	1	696	151-3	V1L176	P4L741A	20020502	6	9	9	9.9	7	9	9	9.9	2	0

42468	E	1	716	151-3	V1L176	P4L741A	20020626	6	9	9	9.5	7	10	9	9.9	2	0
42473	E	1	742	151-3	V1L176	P4L741A	20021221	6	9	9	9.9	8	9	9	9.9	2	0
49202	E	2	5	151-3	V1L176	P4L741A	20040803	7	9	9	9.9	7	10	9	9.9	2	-1
37944	A	2	2460	151-3	V1L176	P4L741A	20020503	7	10	10	10	7	10	10	10	2	0
37945	A	2	2487	151-3	V1L176	P4L741A	20020709	7	10	9	9.9	7	10	10	10	2	0
42480	A	2	2598	151-3	V1L176	P4L741A	20030306	7	9	8	9.9	8	10	9	9.9	3	0
46796	A	2	2631	151-3	V1L176	P4L741A	20030723	6	10	9	9.9	9	10	9	10	3	0
46801	A	2	2737	151-3	V1L176	P4L741A	20040805	7	9	9	9.9	8	10	9	9.9	3	0
50355	A	2	2825	151-3	V1L176	P4L741A	20050419	7	9	9	10	9	10	9	10	2	0