



Test Monitoring Center

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October 13, 2006

CRC Project No. CD-16

To The Participants of the
CRC Heavy-Duty Rating Workshop

The 2006 CRC Heavy-Duty Workshop was held Sunday, October 1, 2006, through Thursday, October 5, 2006. The ASTM Test Monitoring Center was proud to again serve as CRC's contractor for this workshop. Enclosed are the minutes for the workshop and a copy of all of the data generated. Also enclosed is your certificate of participation.

I would like to take this opportunity to thank you for your participation in this workshop. It is the full participation of the entire rating community that allows the CRC rating method to be the vital industry tool that it is. The input of each and every rater is a valued component of that tool.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Parke', is written in a cursive style.

Scott Parke
CRC Workshop Coordinator

Enclosure

MINUTES
CRC HEAVY-DUTY RATING WORKSHOP
SAN ANTONIO, TX

October 1-5, 2006

CRC Workshop Coordinator: Scott Parke
CRC Deposit Rating Project Leader: Tony Barrera

Saturday, September 30, 2006 – Workshop Coordinator Scott Parke and Frank Farber of the Test Monitoring Center (TMC) collected the workshop equipment from storage and transported it to the meeting room. Since the room was not booked for Saturday evening, the hotel graciously allowed Scott and Frank to set up the room early. Loading, transport, and unloading took approximately an hour and a half; set up took roughly three and a half hours.

Sunday, October 1, 2006 – Equipment set up having been completed the previous evening, the only chore remaining for Sunday morning was to position the workshop parts in the designated booths. Hardware available included pistons of square cut, keystone, two-piece, C13, and sequence III-style and sequence V-style. C13 second rings and ISM and sequence V-style sludge parts were also available. Refer to the workshop data for specifics.

As is customary, the session began with distribution of a new CRC rust/varnish rating scale to each rater. Each rater then rated both of the composite calibration pistons. To increase rater throughput for this heavily attended workshop, the two composite calibration pistons were made up of 12 individual pistons in 12 booths (as opposed to the usual 6) and only one zone was rated on each piston (as opposed to the usual 2 zones). Once the last rater finished the calibration pistons, the data was reviewed by the group and any discrepancies, or misunderstandings, or misapplication of definitions was discussed with the goal being for each rater to make whatever adjustments were necessary. Basic descriptive statistics (the so-called “Yi” data) were used to aid in evaluating the data. These tools have been in use at the workshops in various form since 1997.

After a break for lunch, rating of the remaining workshop parts began and continued until approximately 17:00. When rating concluded for the day, a total of 74 ratings were completed.

Monday, October 2, 2006 – Rating began at approximately 08:00 and continued throughout the day until 17:00. The rating total by midday was 136; 199 ratings were completed by the end of the day. Recently, one of the testing labs expressed lack of understanding as to how the workshop color groupings work. The TMC made a presentation to this lab to explain the system. Afterward, the lab felt that the presentation would be helpful to others in the industry as well so TMC has been giving the

presentation at other labs as travel plans have permitted. TMC offered to make this presentation to any interested workshop attendees at the conclusion of the day. A number of the workshop participants attended the presentation which lasted roughly 40 minutes and was followed by 15-20 minutes of question-and-answer.

Tuesday, October 3, 2006 – Rating again began at approximately 08:00. Data was collected until 10:30. In order to avoid the delay printing and copying require, the group elected to forgo hardcopy distribution of the preliminary data and use projection alone for the data review. The rating worksheets were returned to each rater for his reference during the data review. Data review concluded at 12:00. No serious discussion points arose. 235 ratings were completed by the Session A group.

Set up for the Session B group ran from 12:30 to 13:30. The Session B group began rating the calibration parts at 13:30 and finished at 16:50. In order to permit rating to begin promptly the next day, calibration data review started immediately and concluded at 17:20. A total of 42 ratings were completed by Session B raters at this point.

Wednesday, October 4, 2006 – Rating began at approximately 08:00 and continued throughout the day until 17:00 at which point 179 ratings had been completed. At 17:00, the TMC again gave the presentation made to the first group.

Thursday, October 5, 2006 – Rating again began at approximately 08:00. Data was collected until 11:30; entry into the database was completed by 12:00. Data review began at 12:00 and concluded by 12:45. A total of 243 ratings was completed by the Session B raters.

DISCUSSIONS

C13 Undercrown rating – One item brought to light during the workshop discussions was the C13 procedural instructions for undercrown rating. The C13 procedure says to rate according to the 1P procedure. The practice among all lab raters, however, has been to rate only the area within the circular area on the bottom of the piston casting as undercrown. A rater unfamiliar with this practice would include too much of the bottom of the piston in his rating. The C13 Surveillance Panel has been made aware of this and will be addressing it.

Color grouping for sludge ratings – There was some discussion of the appropriateness of using the color grouping tool for sludge ratings. The problem is that the workshops tend not to produce enough sludge data for the color grouping system to work effectively. Insufficient data increases the volatility and thus decreases the reliability of color results possibly leading those unfamiliar with the system to erroneous conclusions. The workshop will investigate ways to increase the amount and quality of sludge data collected while remaining within allowable time constraints. In the meantime, sludge color grouping will not be published when the data is insufficient.

Combined Heavy/Light Duty workshop – As discussed at the April workshop, preliminary investigation into the feasibility of holding combined workshops has been done. There is a some interest in moving in the direction of combined workshops however there are issues to resolve. For example, combining heavy and light duty parts could possibly mean reducing the number of parts of each type available. Obviously, this would adversely impact the data collected. The data quantity problem could be addressed by analyzing heavy and light duty data together regardless of hardware type (acknowledging that this might create other problems). Another solution would be to keep the number of parts the same as present but lengthen the rater's stay at the workshop. This idea will take some time to develop.

Notes on the Data

Following is the data produced during the October 1-5, 2006, CRC Heavy Duty Rating Workshop.

The statistics presented include the data from all participants including novice, field, and standardized engine test raters. It is important to have some knowledge of the raters involved when comparing results.

Some of the CRC evaluation techniques are destructive and, therefore, do not easily allow repeated measurement (measurable sludge deposits, ring sticking, carbon probing, and parts wiping for example). Every effort is made to limit the destructive impact of repeated measurement of these deposits but repeatability and reproducibility cannot help but be adversely affected. This must be a consideration when reviewing data from deposits of this type.

Heavy Duty Rating Workshop

Rater/Parts Crosstab

	Total parts rated	calibration_piston_1	calibration_piston_2	A1_square	A2_keystone	A3_c13	A4_c13	A5_seq_III	A6_two-piece	B1_square	B2_keystone	B3_c13	B4_c13	B5_seq_V	B6_two-piece	C1_square	C2_keystone	C3_c13	C4_c13	C5_seq_III	C6_two-piece	calibration_c13_ring_set_J	c13_ring_set_D	c13_ring_set_E	c13_ring_set_F	c13_ring_set_G	c13_ring_set_H	c13_ring_set_I	ISM_sludge	Seq_V_Sludge
Avis, Steve	18	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Barrera, Tony	23	●	●	●	●					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Beckman, Alan	10	●	●	●	●					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Borland, Rob	11	●	●						●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Campbell, Andy	10	●	●													●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Castillo, George	18	●	●					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Clapperty, Leon	10	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Cole, Steve	17	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Edson, Carter	9	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Engelskirchen, Jim	8	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Foecking, Brian	20	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Greenland, Paul	10	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Hill, Howard	15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Lenzing, Heinz	12	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Holland, Steve	13	●	●													●	●	●	●	●	●	●	●	●	●	●	●	●	●	
<i>Klapka, Al</i>	7	●	●										●	●	●															
Kobrinetz, Jack	18	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Langford, Mike	11	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Lopez, Frank	14	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Lowsky, John	14	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
May, Marianne	27	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Mundt, Matthias	20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Narasaki, Keith	11	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Pansza, Mike	29	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Radonich, Pete	14	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
<i>Ramirez, Manny</i>	7	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Rodriguez, Jesse	9	●	●											●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Sanchez, Art	10	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Shoda, Ron	11	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Tschirhart, Garland	15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
<i>Vela, Paul</i>	7	●	●							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Viera, Ralph	21	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Yanchar, Paul	29	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Total Ratings	478	33	33	17	19	16	16	15	16	20	18	17	15	14	17	19	20	19	17	17	18	13	9	11	9	10	10	10	18	12

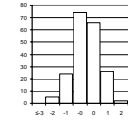
MIN RATINGS/RATER 7 MIN RATINGS/PART 9
 MAX RATINGS/RATER 29 MAX RATINGS/PART 20
 AVG RATINGS/RATER 14 AVG RATINGS/PART 16

Piston Assignment Key:
 Primary Part =
 Secondary Part =

PART ID = Calibration Piston 1

RATED VALUES

	Groove 1	Groove 2	Groove 3	Land 2	Land 3	TGF%									UWPD	WPD
Castillo, George	46.04	30.75	1.59	11.03	8.52	71.00									97.93	97.93
Barrera, Tony	56.58	26.75	1.03	8.60	7.75	74.00									100.75	100.75
May, Marianne	57.27	28.00	0.95	10.27	7.43	73.00									103.92	103.92
Kobrinetz, Jack	54.88	29.50	0.91	10.62	7.60	65.00									103.51	103.51
Viera, Ralph	52.15	33.00	1.33	10.41	6.97	76.00									103.86	103.86
Panza, Mike	62.21	27.75	0.68	7.22	7.74	76.00									105.60	105.60
Sanchez, Art	66.70	37.75	0.60	7.73	7.80	69.00									120.58	120.58
Yanchar, Paul	56.87	31.75	1.00	10.61	7.20	73.00									107.43	107.43
Tschirhart, Garland	52.25	30.00	0.36	13.40	6.80	71.00									102.81	102.81
Radonich, Pete	48.15	38.75	0.65	9.75	7.14	69.00									104.44	104.44
Avis, Steve	56.30	36.20	1.50	8.80	7.68	75.50									110.48	110.48
Mundt, Matthias	45.83	31.50	1.20	10.93	7.51	67.00									96.97	96.97
Campbell, Andy	59.22	31.75	1.40	10.34	7.47	75.00									110.18	110.18
Hill, Howard	59.70	28.36	1.33	6.04	6.63	73.50									102.06	102.06
Lopez, Frank	62.17	31.25	1.68	8.01	8.22	78.00									111.33	111.33
Rodriguez, Jesse	59.05	45.75	1.53	9.42	7.42	68.00									123.17	123.17
Borland, Rob	56.50	54.50	0.80	7.74	9.34	76.00									128.88	128.88
Lenzing, Heinz	61.79	28.75	1.26	11.73	7.21	77.00									110.74	110.74
Foecking, Brian	49.14	25.36	1.58	10.37	8.28	73.00									94.73	94.73
Langford, Mike	63.23	31.52	0.89	9.19	7.55	77.00									112.38	112.38
Greenland, Paul	60.65	30.90	1.07	7.79	7.40	73.00									107.81	107.81
Beckman, Alan	66.36	42.50	0.98	9.98	1.75	65.00									121.57	121.57
Cole, Steve	54.40	33.90	1.80	12.45	9.09	68.00									111.64	111.64
Lowsky, John	45.25	43.25	1.20	4.43	6.73	75.00									100.86	100.86
Holland, Steve	54.13	28.50	1.27	5.68	6.96	74.00									96.54	96.54
Edson, Carter	56.44	29.00	0.88	9.53	9.21	74.00									104.06	104.06
Clapperty, Leon	47.15	32.75	0.87	7.83	7.60	69.00									96.00	96.00
Klapka, Al	67.00	33.75	0.92	10.82	3.26	77.00									115.75	115.75
Vela, Paul	65.83	50.46	0.43	11.19	20.63	78.00									148.54	148.54
Engelskirchen, Jim	64.99	41.76	1.40	10.69	8.29	77.00									127.13	127.13
Shoda, Ron	39.11	34.25	0.80	10.32	7.64	73.00									92.12	92.12
Narasaki, Keith	60.60	30.20	1.60	10.20	9.60	74.00									112.20	112.20
Ramirez, Manny	62.68	48.27	0.48	13.20	7.56	73.00									132.19	132.19
MAXIMUM	67.00	54.50	1.80	13.40	20.63	78.00									148.54	148.54
MINIMUM	39.11	25.36	0.36	4.43	1.75	65.00									92.12	92.12
RANGE (MAX-MIN)	27.89	29.14	1.44	8.97	18.88	13.00									56.42	56.42
MEAN	56.69	34.50	1.09	9.58	7.79	72.94									109.64	109.64
STD	7.11	7.30	0.38	2.04	2.72	3.66									12.29	12.29



yi within 1 71%
 yi within 2 96%
 yi within 3 99%

PART ID = Calibration Piston 1

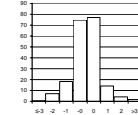
YI VALUES

	Groove 1	Groove 2	Groove 3	Land 2	Land 3	TGF%									UWPD	WPD	MEAN	STD
Castillo, George	-1.50	-0.51	1.30	0.71	0.27	-0.53									-0.95	-0.95	-0.27	0.95
Barrera, Tony	-0.01	-1.06	-0.17	-0.48	0.00	0.29									-0.72	-0.72	-0.36	0.46
May, Marianne	0.08	-0.89	-0.36	0.34	-0.13	0.02									-0.47	-0.47	-0.24	0.39
Kobrinetz, Jack	-0.25	-0.68	-0.47	0.51	-0.07	-2.17									-0.50	-0.50	-0.52	0.76
Viera, Ralph	-0.64	-0.21	0.63	0.41	-0.30	0.84									-0.47	-0.47	-0.03	0.56
Panza, Mike	0.78	-0.92	-1.07	-1.16	-0.02	0.84									-0.33	-0.33	-0.28	0.78
Sanchez, Art	1.41	0.45	-1.28	-0.91	0.00	-1.08									0.89	0.89	0.05	1.03
Yanchar, Paul	0.03	-0.38	-0.23	0.50	-0.22	0.02									-0.18	-0.18	-0.08	0.27
Tschirhart, Garland	-0.62	-0.62	-1.90	1.87	-0.36	-0.53									-0.56	-0.56	-0.41	1.04
Radonich, Pete	-1.20	0.58	-1.15	0.08	-0.24	-1.08									-0.42	-0.42	-0.48	0.64
Avis, Steve	-0.05	0.23	1.07	-0.38	-0.04	0.70									0.07	0.07	0.21	0.46
Mundt, Matthias	-1.53	-0.41	0.29	0.66	-0.10	-1.62									-1.03	-1.03	-0.60	0.84
Campbell, Andy	0.36	-0.38	0.81	0.37	-0.12	0.56									0.04	0.04	0.21	0.38
Hill, Howard	0.42	-0.84	0.63	-1.73	-0.43	0.15									-0.62	-0.62	-0.38	0.77
Lopez, Frank	0.77	-0.44	1.54	-0.77	0.16	1.38									0.14	0.14	0.36	0.82
Rodriguez, Jesse	0.33	1.54	1.15	-0.08	-0.14	-1.35									1.10	1.10	0.46	0.96
Borland, Rob	-0.03	2.74	-0.76	-0.90	0.57	0.84									1.57	1.57	0.70	1.25
Lenzing, Heinz	0.72	-0.79	0.44	1.05	-0.21	1.11									0.09	0.09	0.31	0.65
Foecking, Brian	-1.06	-1.25	1.28	0.39	0.18	0.02									-1.21	-1.21	-0.36	0.96
Langford, Mike	0.92	-0.41	-0.52	-0.19	-0.09	1.11									0.22	0.22	0.16	0.59
Greenland, Paul	0.56	-0.49	-0.05	-0.88	-0.14	0.02									-0.15	-0.15	-0.16	0.41
Beckman, Alan	1.36	1.10	-0.29	0.20	-2.22	-2.17									0.97	0.97	-0.01	1.45
Cole, Steve	-0.32	-0.08	1.85	1.41	0.48	-1.35									0.16	0.16	0.29	1.00
Lowsky, John	-1.61	1.20	0.29	-2.52	-0.39	0.56									-0.71	-0.71	-0.49	1.20
Holland, Steve	-0.36	-0.82	0.47	-1.91	-0.30	0.29									-1.07	-1.07	-0.60	0.78
Edson, Carter	-0.03	-0.75	-0.55	-0.02	0.15	0.29									-0.45	-0.45	-0.23	0.37
Clapperty, Leon	-1.34	-0.24	-0.57	-0.95	-0.07	-1.08									-1.11	-1.11	-0.81	0.46
Klapka, Al	1.45	-0.10	-0.44	0.61	-1.66	1.11									0.50	0.50	0.24	0.98
Vela, Paul	1.29	2.19	-1.72	0.79	4.72	1.38									3.16	3.16	1.87	1.93
Engelskirchen, Jim	1.17	0.99	0.81	0.54	0.18	1.11									1.42	1.42	0.96	0.43
Shoda, Ron	-2.47	-0.03	-0.76	0.36	-0.05	0.02									-1.43	-1.43	-0.72	0.98
Narasaki, Keith	0.55	-0.59	1.33	0.30	0.67	0.29									0.21	0.21	0.37	0.54
Ramirez, Manny	0.84	1.89	-1.59	1.77	-0.08	0.02									1.83	1.83	0.81	1.27
YI MAXIMUM	-2.47	2.74	-1.90	-2.52	4.72	-2.17									3.16	3.16	1.87	1.93
YI MINIMUM	-0.01	-0.03	-0.05	-0.02	0.00	-0.53									-0.15	-0.15	-0.01	0.27
YI MEAN	0.00	0.00	0.00	0.00	0.00	0.00									0.00	0.00		
YI STD	1.00	1.00	1.00	1.00	1.00	1.00									1.00	1.00		
Ratings MEAN	56.69	34.50	1.09	9.58	7.79	72.94									109.64	109.64		
Ratings STD	7.11	7.30	0.38	2.04	2.72	3.66									12.29	12.29		

PART ID = Calibration Piston 2

RATED VALUES

	Groove 1	Groove 2	Groove 3	Land 2	Land 3	TGF%									UWPD	WPD
Yanchar, Paul	72.48	32.02	1.08	6.71	4.24	93.00									116.53	116.53
Kobrinetz, Jack	72.43	32.04	1.34	7.86	5.49	94.00									118.96	118.96
Barrera, Tony	72.87	29.34	0.98	5.50	5.13	94.00									113.81	113.81
Tschirhart, Garland	75.55	32.50	1.00	5.10	4.40	77.00									118.55	118.55
Pansza, Mike	76.89	30.78	1.32	5.24	5.98	88.00									120.21	120.21
Castillo, George	63.29	32.26	1.32	5.88	2.72	92.00									105.47	105.47
Radonich, Pete	68.65	31.02	1.03	5.84	3.69	89.00									110.23	110.23
May, Marianne	70.54	31.28	1.17	6.90	5.01	98.00									114.90	114.90
Viera, Ralph	69.03	33.51	1.19	6.07	2.25	86.00									112.05	112.05
Mundt, Matthias	63.31	31.06	1.60	7.63	5.32	82.00									108.92	108.92
Avis, Steve	69.50	33.30	1.34	7.35	4.38	80.50									115.87	115.87
Sanchez, Art	70.45	33.50	1.08	4.68	3.51	80.00									113.22	113.22
Campbell, Andy	69.48	34.29	1.35	5.89	5.04	82.00									116.05	116.05
Clapperty, Leon	63.53	31.81	0.69	10.73	3.79	87.00									110.55	110.55
Langford, Mike	76.34	32.65	0.95	7.70	5.14	90.00									122.78	122.78
Greenland, Paul	71.75	34.75	1.53	6.05	4.93	89.00									119.01	119.01
Lopez, Frank	77.38	32.51	1.64	5.52	5.06	92.00									122.11	122.11
Narasaki, Keith	79.20	30.60	1.70	7.90	5.90	86.50									125.30	125.30
Engelskirchen, Jim	75.11	34.53	1.50	8.02	2.45	74.00									121.61	121.61
Foecking, Brian	68.64	28.85	1.39	4.61	2.05	90.00									105.54	105.54
Rodriguez, Jesse	64.58	32.52	1.65	5.78	4.82	68.00									109.35	109.35
Beckman, Alan	83.00	51.54	1.52	6.92	3.00	32.00									145.98	145.98
Cole, Steve	70.85	32.40	2.60	5.15	6.81	85.00									117.81	117.81
Lowsky, John	58.23	41.50	1.48	5.40	3.78	80.00									110.39	110.39
Holland, Steve	76.75	31.00	0.89	3.89	3.88	70.00									116.41	116.41
Lenzing, Heinz	77.10	31.60	1.60	5.59	4.47	92.00									120.38	120.38
Edson, Carter	74.13	30.78	1.11	5.18	4.37	41.00									115.55	115.55
Hill, Howard	66.38	29.19	1.48	8.11	5.18	41.00									110.34	110.34
Shoda, Ron	62.30	36.01	1.25	6.44	6.10	93.00									112.10	112.10
Borland, Rob	67.30	42.50	1.60	8.72	7.56	22.80									127.68	127.68
Klapka, Al	83.88	36.25	2.14	2.52	1.85	76.00									126.64	126.64
Ramirez, Manny	62.51	39.83	1.44	7.54	4.01	78.00									115.33	115.33
Vela, Paul	73.40	29.02	1.50	2.36	0.42	93.00									106.70	106.70
MAXIMUM	83.88	51.54	2.60	10.73	7.56	98.00									145.98	145.98
MINIMUM	58.23	28.85	0.69	2.36	0.42	22.80									105.47	105.47
RANGE (MAX-MIN)	25.65	22.69	1.91	8.37	7.14	75.20									40.51	40.51
MEAN	71.12	33.54	1.38	6.20	4.33	78.96									116.55	116.55
STD	6.11	4.57	0.36	1.70	1.50	18.50									7.86	7.86



yi within 1 77%
 yi within 2 93%
 yi within 3 98%

PART ID = Calibration Piston 2

YI VALUES

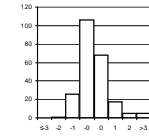
	Groove 1	Groove 2	Groove 3	Land 2	Land 3	TGF%									UWPD	WPD	MEAN	STD
Yanchar, Paul	0.22	-0.33	-0.82	0.30	-0.06	0.76									0.00	0.00	0.01	0.46
Kobrinetz, Jack	0.22	-0.33	-0.10	0.86	0.78	0.81									0.31	0.31	0.36	0.44
Barrera, Tony	0.29	-0.92	-1.09	-0.41	0.53	0.27									-0.35	-0.35	-0.25	0.58
Tschirhart, Garland	0.73	-0.23	-1.04	-0.65	0.05	-0.11									0.25	0.25	-0.09	0.55
Pansza, Mike	0.86	-0.60	-0.16	-0.56	1.10	0.49									0.47	0.47	0.27	0.64
Castillo, George	-1.28	-0.28	-0.16	-0.19	-1.07	0.70									-1.41	-1.41	-0.64	0.77
Radonich, Pete	-0.40	-0.55	-0.97	-0.21	-0.42	0.54									-0.81	-0.81	-0.45	0.47
May, Marianne	-0.09	-0.49	-0.57	0.41	0.46	1.03									-0.21	-0.21	0.04	0.55
Viera, Ralph	-0.34	-0.01	-0.51	-0.08	-1.38	0.38									-0.57	-0.57	-0.39	0.52
Mundt, Matthias	-1.28	-0.54	0.60	0.84	0.66	0.16									-0.97	-0.97	-0.19	0.85
Avis, Steve	-0.26	-0.05	-0.10	0.68	0.04	0.08									-0.09	-0.09	0.03	0.28
Sanchez, Art	-0.11	-0.01	-0.82	-0.89	-0.54	0.06									-0.42	-0.42	-0.40	0.36
Campbell, Andy	-0.27	0.16	-0.07	-0.18	0.48	0.16									-0.06	-0.06	0.02	0.24
Clapperty, Leon	-1.24	-0.38	-1.89	2.66	-0.36	0.43									-0.76	-0.76	-0.29	1.37
Langford, Mike	0.86	-0.19	-1.17	0.88	0.54	0.60									0.79	0.79	0.39	0.72
Greenland, Paul	0.10	0.27	0.42	-0.09	0.40	0.54									0.31	0.31	0.28	0.20
Lopez, Frank	1.03	-0.22	0.72	-0.40	0.49	0.70									0.71	0.71	0.47	0.50
Narasaki, Keith	1.32	-0.64	0.89	1.00	1.05	0.41									1.11	1.11	0.78	0.63
Engelskirchen, Jim	0.65	0.22	0.34	1.07	-1.25	-0.27									0.64	0.64	0.26	0.72
Foecking, Brian	-0.41	-1.03	0.04	-0.93	-1.51	0.60									-1.40	-1.40	-0.76	0.76
Rodriguez, Jesse	-1.07	-0.22	0.75	-0.25	0.33	-0.59									-0.92	-0.92	-0.36	0.65
Beckman, Alan	1.95	3.94	0.39	0.42	-0.88	-2.54									3.74	3.74	1.35	2.40
Cole, Steve	-0.04	-0.25	3.36	-0.62	1.65	0.33									0.16	0.16	0.59	1.30
Lowsky, John	-2.11	1.74	0.28	-0.47	-0.36	0.06									-0.78	-0.78	-0.30	1.10
Holland, Steve	0.92	-0.55	-1.34	-1.36	-0.30	-0.48									-0.02	-0.02	-0.39	0.74
Lenzing, Heinz	0.98	-0.42	0.61	-0.36	0.10	0.70									0.48	0.48	0.32	0.50
Edson, Carter	0.49	-0.61	-0.73	-0.60	0.03	-2.05									-0.13	-0.13	-0.47	0.76
Hill, Howard	-0.78	-0.95	0.28	1.12	0.57	-2.05									-0.79	-0.79	-0.42	1.01
Shoda, Ron	-1.44	0.54	-0.35	0.14	1.18	0.76									-0.57	-0.57	-0.04	0.86
Borland, Rob	-0.63	1.96	0.61	1.48	2.15	-3.04									1.42	1.42	0.87	1.73
Klapka, Al	2.09	0.59	2.10	-2.16	-1.65	-0.16									1.28	1.28	0.42	1.62
Ramirez, Manny	-1.41	1.38	0.17	0.79	-0.21	-0.05									-0.16	-0.16	0.04	0.81
Vela, Paul	0.37	-0.99	0.34	-2.25	-2.60	0.76									-1.25	-1.25	-0.86	1.25
YI MAXIMUM	-2.11	3.94	3.36	2.66	-2.60	-3.04									3.74	3.74	1.35	2.40
YI MINIMUM	-0.04	-0.01	-0.07	-0.08	-0.06	-0.05									0.00	0.00	0.01	0.20
YI MEAN	0.00	0.00	0.00	0.00	0.00	0.00									0.00	0.00		
YI STD	1.00	1.00	1.00	1.00	1.00	1.00									1.00	1.00		
Ratings MEAN	71.12	33.54	1.38	6.20	4.33	78.96									116.55	116.55		
Ratings STD	6.11	4.57	0.36	1.70	1.50	18.50									7.86	7.86		

Heavy Duty Diesel Rating Workshop

PART ID = Piston A2 - keystone

RATED VALUES

	Groove 1	Groove 2	Groove 3	Land 1	Land 2	Land 3	Skirt	Under-crown	TGF%	2nd GF%	TLHC%	TLFC%			UWPD	WPD
Panza, Mike	25.00	35.57	0.90	14.77	24.07	9.86	0.50	1.87	10.00	23.00	0.00	0.00			112.54	461.10
Sanchez, Art	26.25	35.03	0.55	3.08	39.10	8.62	0.24	1.40	25.00	54.00	0.00	1.00			114.27	403.35
Yanchar, Paul	25.00	38.81	1.02	8.40	32.95	9.53	0.57	2.01	6.00	49.00	0.00	0.00			118.29	469.52
Kobrinetz, Jack	25.25	39.55	0.96	12.20	35.37	10.40	0.50	1.82	10.00	57.00	0.00	1.00			126.05	490.17
Tschirhart, Garland	22.05	24.31	0.36	4.70	50.10	8.92	0.50	2.04	8.00	14.00	0.00	0.00			112.98	422.14
May, Marianne	25.00	38.81	0.90	5.55	35.41	10.72	0.36	1.55	8.00	34.00	0.00	0.00			118.30	476.18
Viera, Ralph	27.75	18.31	0.80	11.56	31.51	9.19	0.51	1.31	17.00	45.00	0.00	0.00			100.94	413.61
Mundt, Matthias	25.00	41.50	0.83	6.02	30.93	10.53	0.25	1.04	3.00	59.00	0.00	0.00			116.10	453.88
Cole, Steve	25.75	35.56	1.10	13.96	38.45	8.97	0.50	1.20	20.00	38.00	0.00	3.00			125.49	445.13
Narasaki, Keith	26.50	28.90	0.60	12.50	41.90	11.10	0.20	1.60	24.00	34.00	0.00	0.00			121.30	469.00
Greenland, Paul	28.75	39.53	0.95	2.35	24.34	8.23	0.68	1.93	4.00	69.00	0.00	0.00			106.76	431.21
Lenzing, Heinz	26.75	37.11	0.68	5.99	38.57	7.16	0.50	1.80	10.00	54.00	0.00	0.00			118.56	397.35
Engelskirchen, Jim	26.00	32.59	0.88	17.08	40.81	10.89	0.29	1.41	3.00	43.00	0.00	1.00			129.95	482.73
Hill, Howard	26.00	22.40	1.63	22.06	35.88	7.32	0.46	1.80	22.00	34.00	0.00	0.00			117.55	413.29
Klapka, Al	41.50	25.00	1.00	34.50	59.50	13.70	0.22	3.30	14.00	18.00	0.00	0.00			178.72	638.25
Holland, Steve	25.00	36.10	1.03	6.39	32.56	9.27	0.44	1.82	10.00	35.00	0.00	0.00			112.61	446.50
Lowsky, John	25.00	35.81	1.55	5.00	31.40	8.04	0.95	1.95	15.00	35.00	0.00	0.00			109.70	453.87
Beckman, Alan	26.12	40.75	0.50	8.62	66.25	6.68	0.08	0.96	21.00	25.00	2.50	0.50			149.96	377.88
Barrera, Tony	25.00	35.05	1.32	7.19	38.16	9.80	0.68	1.78	8.00	36.00	0.00	0.00			118.98	483.03
MAXIMUM	41.50	41.50	1.63	34.50	66.25	13.70	0.95	3.30	25.00	69.00	2.50	3.00			178.72	638.25
MINIMUM	22.05	18.31	0.36	2.35	24.07	6.68	0.08	0.96	3.00	14.00	0.00	0.00			100.94	377.88
RANGE (MAX-MIN)	19.45	23.19	1.27	32.15	42.18	7.02	0.87	2.34	22.00	55.00	2.50	3.00			77.78	260.38
MEAN	26.51	33.62	0.92	10.63	38.28	9.42	0.44	1.72	12.53	39.79	0.13	0.34			121.53	454.11
STD	3.87	6.83	0.33	7.73	10.59	1.65	0.20	0.50	7.14	14.62	0.57	0.75			17.22	55.00



yi within 1 76%
 yi within 2 95%
 yi within 3 98%

PART ID = Piston A2 - keystone

YI VALUES

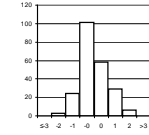
	Groove 1	Groove 2	Groove 3	Land 1	Land 2	Land 3	Skirt	Under-crown	TGF%	2nd GF%	TLHC%	TLFC%			UWPD	WPD	MEAN	STD
Panza, Mike	-0.39	0.29	-0.07	0.54	-1.34	0.27	0.27	0.31	-0.35	-1.15	-0.23	-0.46			-0.52	0.13	-0.19	0.56
Sanchez, Art	-0.07	0.21	-1.14	-0.98	0.08	-0.48	-0.99	-0.63	1.75	0.97	-0.23	0.88			-0.42	-0.92	-0.14	0.85
Yanchar, Paul	-0.39	0.76	0.29	-0.29	-0.50	0.07	0.62	0.59	-0.91	0.63	-0.23	-0.46			-0.19	0.28	0.02	0.52
Kobrinetz, Jack	-0.33	0.87	0.11	0.20	-0.27	0.60	0.27	0.21	-0.35	1.18	-0.23	0.88			0.26	0.66	0.29	0.49
Tschirhart, Garland	-1.15	-1.36	-1.72	-0.77	1.12	-0.30	0.27	0.65	-0.63	-1.76	-0.23	-0.46			-0.50	-0.58	-0.53	0.83
May, Marianne	-0.39	0.76	-0.07	-0.66	-0.27	0.79	-0.41	-0.33	-0.63	-0.40	-0.23	-0.46			-0.19	0.40	-0.15	0.47
Viera, Ralph	0.32	-2.24	-0.38	0.12	-0.64	-0.14	0.32	-0.81	0.63	0.36	-0.23	-0.46			-1.20	-0.74	-0.36	0.75
Mundt, Matthias	-0.39	1.15	-0.30	-0.60	-0.69	0.67	-0.95	-1.34	-1.33	1.31	-0.23	-0.46			-0.32	0.00	-0.25	0.81
Cole, Steve	-0.20	0.28	0.54	0.43	0.02	-0.27	0.27	-1.02	1.05	-0.12	-0.23	3.56			0.23	-0.16	0.31	1.05
Narasaki, Keith	0.00	-0.98	-0.99	0.24	0.34	1.02	-1.19	-0.23	1.61	-0.40	-0.23	-0.46			-0.01	0.27	-0.07	0.77
Greenland, Paul	0.58	0.87	0.08	-1.07	-1.32	-0.72	1.15	0.43	-1.19	2.00	-0.23	-0.46			-0.86	-0.42	-0.08	0.98
Lenzing, Heinz	0.06	0.51	-0.74	-0.60	0.03	-1.37	0.27	0.17	-0.35	0.97	-0.23	-0.46			-0.17	-1.03	-0.21	0.62
Engelskirchen, Jim	-0.13	-0.15	-0.13	0.83	0.24	0.89	-0.75	-0.61	-1.33	0.22	-0.23	0.88			0.49	0.52	0.05	0.66
Hill, Howard	-0.13	-1.64	2.15	1.48	-0.23	-1.27	0.08	0.17	1.33	-0.40	-0.23	-0.46			-0.23	-0.74	-0.01	1.04
Klapka, Al	3.87	-1.26	0.23	3.09	2.00	2.59	-1.09	3.15	0.21	-1.49	-0.23	-0.46			3.32	3.35	1.23	1.99
Holland, Steve	-0.39	0.36	0.32	-0.55	-0.54	-0.09	-0.02	0.21	-0.35	-0.33	-0.23	-0.46			-0.52	-0.14	-0.19	0.31
Lowsky, John	-0.39	0.32	1.91	-0.73	-0.65	-0.83	2.47	0.47	0.35	-0.33	-0.23	-0.46			-0.69	0.00	0.09	0.99
Beckman, Alan	-0.10	1.04	-1.29	-0.26	2.64	-1.66	-1.77	-1.50	1.19	-1.01	4.13	0.21			1.65	-1.39	0.13	1.80
Barrera, Tony	-0.39	0.21	1.21	-0.44	-0.01	0.23	1.15	0.13	-0.63	-0.26	-0.23	-0.46			-0.15	0.53	0.06	0.57
YI MAXIMUM	3.87	-2.24	2.15	3.09	2.64	2.59	2.47	3.15	1.75	2.00	4.13	3.56			3.32	3.35	1.23	1.99
YI MINIMUM	0.00	-0.15	-0.07	-0.26	-0.01	0.07	-0.02	0.13	-0.35	-0.12	-0.23	-0.46			-0.01	0.00	-0.01	0.31
YI MEAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00		
YI STD	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00		
Ratings MEAN	26.51	33.62	0.92	10.63	38.28	9.42	0.44	1.72	12.53	39.79	0.13	0.34			121.53	454.11		
Ratings STD	3.87	6.83	0.33	7.73	10.59	1.65	0.20	0.50	7.14	14.62	0.57	0.75			17.22	55.00		

Heavy Duty Diesel Rating Workshop

PART ID = Piston C4 - C13 style

RATED VALUES

Table with 17 columns: Groove 1, Groove 2, Groove 3, Land 1, Land 2, Land 3, Land 4, Under-crown, TGF%, 2nd GF%, AGF%, TLHC%, TLFC%, UWP, WPD. Rows include individual ratings for various personnel and summary statistics like MAXIMUM, MINIMUM, RANGE, MEAN, and STD.



yi within 1 72%
yi within 2 96%
yi within 3 100%

PART ID = Piston C4 - C13 style

YI VALUES

Table with 18 columns: Groove 1, Groove 2, Groove 3, Land 1, Land 2, Land 3, Land 4, Under-crown, TGF%, 2nd GF%, AGF%, TLHC%, TLFC%, UWP, WPD, MEAN, STD. Rows include individual Yi values for various personnel and summary statistics like Yi MAXIMUM, Yi MINIMUM, Yi MEAN, Yi STD, Ratings MEAN, and Ratings STD.

October 1-5, 2006

Heavy Duty Rating Workshop

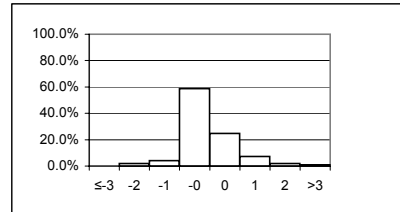
Rater = Avis, Steve

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	-0.05	0.23	1.07			-0.38	-0.04					0.70					0.07	0.23	0.50
calibration_piston_2	-0.26	-0.05	-0.10			0.68	0.04					0.08					-0.09	0.04	0.30
A1_square																			
A2_keystone																			
A3_c13																			
A4_c13																			
A5_seq_III																			
A6_two-piece																			
B1_square	-0.38	-0.46	-0.01	3.71		-0.66	0.08	-0.56				-0.81					-0.69	0.02	1.41
B2_keystone	-0.08	-0.32	1.26		-0.09	-0.41	0.83		0.65	0.57		-1.14	1.14		-0.72	-0.56	-0.31	0.06	0.75
B3_c13	-0.96	0.15	-0.82		0.48	-0.56	-0.23	-1.33		0.47		-0.34	-0.68	0.00	-0.47	-1.70	-0.41	-0.46	0.63
B4_c13	0.21	-0.62	-0.85		-0.28	-0.73	-0.51	-0.81		1.82		0.74	-0.68	0.47	-0.42	-0.26	-0.30	-0.16	0.74
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece	0.01	0.38	-1.18		-0.46	-0.44	-0.01	-0.72		1.12	0.60	-0.22	-0.31		-0.74	-0.70	-0.13	-0.20	0.60
C1_square																			
C2_keystone																			
C3_c13																			
C4_c13	-0.13	-0.36	-0.85		-0.82	-0.57	-0.45	-0.85		2.09		1.23	-1.27	1.77	-0.53	-1.19	-0.51	-0.17	1.07
C5_seq_III	-0.46	-0.28	0.16			0.23	-2.12			-0.28							-0.48	-0.46	0.78
C6_two-piece	0.16	-0.36	0.37		-0.87	-2.03	0.05	-0.13		0.06	2.88	-0.56	-0.71		-0.45	-0.32	0.13	-0.13	1.05
Yi MAXIMUM	-0.96	-0.62	1.26	3.71	-0.87	-2.03	-2.12	-1.33	0.65	2.09	2.88	1.23	-1.27	1.77	-0.74	-1.70	-0.69	-0.46	1.41
Yi MINIMUM	0.01	-0.05	-0.01	3.71	-0.09	0.23	-0.01	-0.13	0.65	0.06	0.60	0.08	-0.31	0.00	-0.42	-0.26	0.07	0.02	0.30
Yi MEAN	-0.19	-0.17	-0.10	3.71	-0.34	-0.49	-0.24	-0.74	0.65	0.83	1.74	-0.04	-0.42	0.75	-0.56	-0.79	-0.27		
Yi STD	0.34	0.33	0.84		0.50	0.70	0.76	0.39		0.88	1.61	0.79	0.82	0.92	0.14	0.56	0.26		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	2	2.1%	-1 < yi ≤ 1	83.5%
-2 lt yi le -1	4	4.1%	-2 < yi ≤ 2	94.8%
-1 lt yi le 0	57	58.8%	-3 < yi ≤ 3	99.0%
0 lt yi le 1	24	24.7%	>3	1.0%
1 lt yi le 2	7	7.2%		
2 lt yi le 3	2	2.1%	Overall Yi STD	0.88
3 lt yi	1	1.0%		
total	97	100.0%	Parts Rated	10

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

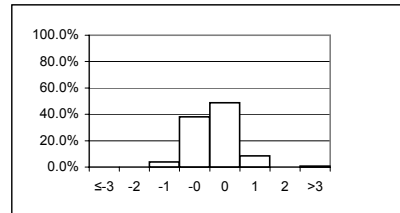
Rater = Barrera, Tony

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	-0.01	-1.06	-0.17			-0.48	0.00					0.29					-0.72	-0.31	0.47
calibration_piston_2	0.29	-0.92	-1.09			-0.41	0.53					-0.27					-0.35	-0.24	0.63
A1_square	0.54	-0.82	-1.02	-0.61		-0.12	0.01	-0.21				1.54					0.34	-0.04	0.78
A2_keystone	-0.39	0.21	1.21		-0.44	-0.01	0.23		1.15	0.13		-0.63	-0.26		-0.23	-0.46	-0.15	0.03	0.58
A3_c13																			
A4_c13																			
A5_seq_III																			
A6_two-piece																			
B1_square	0.57	-0.56	-0.78	-0.05		-0.04	-0.21	-0.76				0.68					0.03	-0.12	0.53
B2_keystone	0.39	-0.72	0.12		0.07	-0.07	0.27		0.03	0.93		0.23	-0.18		-0.72	1.12	0.05	0.12	0.53
B3_c13	1.92	-0.08	-0.48		0.78	0.11	0.11	-0.58		-0.54		0.73	0.12	0.13	-0.47	-0.29	0.54	0.14	0.68
B4_c13																			
B5-1_seq_V									0.94									0.94	
B5-2_seq_V									0.78									0.78	
B5-3_seq_V									0.85									0.85	
B5-4_seq_V									0.98									0.98	
B5-5_seq_V									0.55									0.55	
B5-6_seq_V									0.88									0.88	
B5-7_seq_V									0.52									0.52	
B5-8_seq_V									0.43									0.43	
B6_two-piece																			
C1_square	0.66	0.90	0.97	-0.54		0.03	-0.23	0.61				0.85					0.63	0.43	0.54
C2_keystone	-0.20	0.06	0.67		-0.37	0.89	0.57		-0.21	1.35		-0.55	0.23		-0.32	-0.22	0.20	0.16	0.56
C3_c13	0.84	0.27	-1.04		0.48	0.67	0.79	-0.83		-0.51	0.48	0.96	0.12	1.33	0.24	-1.41	0.64	0.18	0.82
C4_c13	1.70	-0.54	-0.80		-0.17	1.20	0.52	-0.50		-0.48		1.37	-0.24	0.79	-0.20	-1.19	1.03	0.18	0.91
C5_seq_III	0.88	0.60	-0.64			0.55	0.18			3.32							1.15	0.86	1.23
C6_two-piece	-0.46	0.40	0.66		1.58	1.45	-0.24	0.34		0.16	-0.19	-1.02	0.22		0.56	-0.32	0.52	0.26	0.70
Yi MAXIMUM	1.92	-1.06	1.21	-0.61	1.58	1.45	0.79	-0.83	1.15	3.32	-0.19	1.54	-0.26	1.33	-0.72	-1.41	1.15	0.98	1.23
Yi MINIMUM	-0.01	0.06	0.12	-0.05	0.07	-0.01	0.00	-0.21	0.03	0.13	-0.19	0.23	0.12	0.13	-0.20	-0.22	0.03	0.03	0.47
Yi MEAN	0.52	-0.17	-0.18	-0.40	0.28	0.29	0.19	-0.28	0.63	0.54	-0.19	0.39	0.00	0.75	-0.16	-0.40	0.30		
Yi STD	0.72	0.64	0.82	0.31	0.73	0.61	0.33	0.56	0.42	1.32		0.80	0.22	0.60	0.43	0.82	0.53		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	87.0%
-2 lt yi le -1	5	3.8%	-2 < yi ≤ 2	99.2%
-1 lt yi le 0	50	38.2%	-3 < yi ≤ 3	99.2%
0 lt yi le 1	64	48.9%	>3	0.8%
1 lt yi le 2	11	8.4%		
2 lt yi le 3	0	0.0%	Overall Yi STD	0.72
3 lt yi	1	0.8%		
total	131	100.0%	Parts Rated	21

Yi distribution (excluding shaded columns)



Group: Blue

October 1-5, 2006

Heavy Duty Rating Workshop

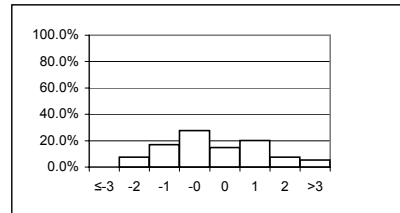
Rater = Beckman, Alan

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	1.36	1.10	-0.29			0.20	-2.22					-2.17					0.97	-0.15	1.50
calibration_piston_2	1.95	3.94	0.39			0.42	-0.88					-2.54					3.74	1.00	2.37
A1_square	1.72	-1.07	-0.47	0.04		-0.82	0.01	-0.21				1.09					1.17	0.16	0.96
A2_keystone	-0.10	1.04	-1.29		-0.26	2.64	-1.66		-1.77	-1.50		1.19	-1.01		4.13	0.21	1.65	0.25	1.81
A3_c13																			
A4_c13																			
A5_seq_III																			
A6_two-piece																			
B1_square	1.29	3.58	0.69	-0.26		2.19	-0.82	-0.87				0.47					2.73	1.00	1.58
B2_keystone	-2.49	1.89	-0.36		-0.19	1.38	-1.61		-1.12	-1.27		-0.05	-0.73		2.53	-0.56	0.37	-0.17	1.42
B3_c13	0.17	-1.28	-1.02		2.41	-0.46	1.76	-0.54		-0.33		0.12	2.12	3.44	2.90	1.12	-0.10	0.74	1.54
B4_c13	-0.10	-0.14	-1.43		-0.17	0.39	-0.85	-0.51		-0.78		-2.04	-0.27	-1.28	3.40	-0.26	-0.17	-0.30	1.24
B5-1_seq_V									1.31									1.31	
B5-2_seq_V									0.98									0.98	
B5-3_seq_V									0.88									0.88	
B5-4_seq_V									1.49									1.49	
B5-5_seq_V									2.03									2.03	
B5-6_seq_V									1.85									1.85	
B5-7_seq_V									1.73									1.73	
B5-8_seq_V									1.58									1.58	
B6_two-piece	1.00	-2.96	-1.16		1.58	-2.33	-1.55	-0.88		-0.34	0.69	-1.71	0.51		1.63	-1.11	0.58	-0.43	1.46
C1_square																			
C2_keystone																			
C3_c13																			
C4_c13																			
C5_seq_III																			
C6_two-piece																			
Yi MAXIMUM	-2.49	3.94	-1.43	-0.26	2.41	2.64	-2.22	-0.88	2.03	-1.50	0.69	-2.54	2.12	3.44	4.13	1.12	3.74	2.03	2.37
Yi MINIMUM	-0.10	-0.14	-0.29	0.04	-0.17	0.20	0.01	-0.21	0.88	-0.33	0.69	-0.05	-0.27	-1.28	1.63	0.21	-0.10	-0.15	0.96
Yi MEAN	0.53	0.68	-0.55	-0.11	0.67	0.40	-0.87	-0.60	0.90	-0.84	0.69	-0.63	0.12	1.08	2.92	-0.12	1.22		
Yi STD	1.37	2.28	0.75	0.21	1.24	1.54	1.18	0.28	1.29	0.53		1.48	1.26	3.33	0.94	0.84	1.31		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	7	7.4%	-1 < yi ≤ 1	42.6%
-2 lt yi le -1	16	17.0%	-2 < yi ≤ 2	79.8%
-1 lt yi le 0	26	27.7%	-3 < yi ≤ 3	94.7%
0 lt yi le 1	14	14.9%	>3	5.3%
1 lt yi le 2	19	20.2%		
2 lt yi le 3	7	7.4%	Overall Yi STD	1.57
3 lt yi	5	5.3%		
total	94	100.0%	Parts Rated	17

Yi distribution (excluding shaded columns)



Group: Yellow

October 1-5, 2006

Heavy Duty Rating Workshop

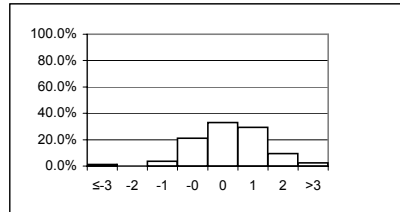
Rater = Borland, Rob

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD	
calibration_piston_1	-0.03	2.74	-0.76			-0.90	0.57					0.84					1.57	0.58	1.29	
calibration_piston_2	-0.62	1.96	0.61			1.48	2.15					-3.04					1.42	0.57	1.84	
A1_square																				
A2_keystone																				
A3_c13																				
A4_c13																				
A5_seq_III																				
A6_two-piece	0.50	0.84	0.94		0.63	1.44	0.78	1.38		0.50	-0.52	0.52	-0.41		-0.28	-0.53	0.77	0.47	0.66	
B1_square																				
B2_keystone																				
B3_c13																				
B4_c13																				
B5-1_seq_V																				
B5-2_seq_V																				
B5-3_seq_V																				
B5-4_seq_V																				
B5-5_seq_V																				
B5-6_seq_V																				
B5-7_seq_V																				
B5-8_seq_V																				
B6_two-piece																				
C1_square	1.22	0.61	0.18	2.21		0.64	1.63	1.74				0.85					1.43	1.17	0.65	
C2_keystone	1.70	0.22	0.12		0.29	0.48	1.49		0.53	-0.23		2.98	-0.21		-0.32	-0.22	0.74	0.58	0.96	
C3_c13	-1.43	0.87	1.53		-0.29	1.77	1.40	1.98		0.36	-0.29	-0.60	2.19	0.17	-1.30	0.72	-0.01	0.52	1.17	
C4_c13	1.28	0.72	1.97		0.28	2.77	1.86	2.40		1.03		0.21	2.85	-1.18	-0.20	-0.41	2.68	1.16	1.31	
C5_seq_III	1.57	3.50	3.52			0.65	1.63			-0.40							2.19	1.81	1.43	
C6_two-piece	0.26	0.66	-0.25		1.90	1.54	1.06	1.47		-0.97	-0.41	1.27	1.15		-0.45	-0.32	0.74	0.55	0.90	
Yi MAXIMUM	1.70	3.50	3.52	2.21	1.90	2.77	2.15	2.40	0.53	1.03	-0.52	-3.04	2.85	-1.18	-1.30	0.72	2.68	1.81	1.84	
Yi MINIMUM	-0.03	0.22	0.12	2.21	0.28	0.48	0.57	1.38	0.53	-0.23	-0.41	0.21	-0.21	0.17	-0.20	-0.22	-0.01	0.47	0.65	
Yi MEAN	0.49	1.35	0.87	2.21	0.56	1.10	1.40	1.79	0.53	0.05	-0.46	0.38	1.11	-0.51	-0.51	-0.15	1.28			
Yi STD	1.06	1.12	1.31		0.82	1.03	0.51	0.41		0.72	0.08	1.72	1.43	0.95	0.45	0.50	0.82			

yi le	count	percent		
yi le -3	1	1.2%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	54.1%
-2 lt yi le -1	3	3.5%	-2 < yi ≤ 2	87.1%
-1 lt yi le 0	18	21.2%	-3 < yi ≤ 3	96.5%
0 lt yi le 1	28	32.9%	>3	3.5%
1 lt yi le 2	25	29.4%		
2 lt yi le 3	8	9.4%	Overall Yi STD	1.17
3 lt yi	2	2.4%		
total	85	100.0%	Parts Rated	9

Yi distribution (excluding shaded columns)



Group: Yellow

October 1-5, 2006

Heavy Duty Rating Workshop

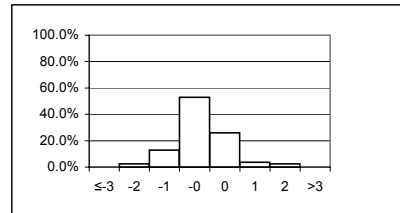
Rater = Campbell, Andy

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	0.36	-0.38	0.81			0.37	-0.12					0.56					0.04	0.24	0.41
calibration_piston_2	-0.27	0.16	-0.07			-0.18	0.48					0.16					-0.06	0.03	0.25
A1_square																			
A2_keystone																			
A3_c13																			
A4_c13																			
A5_seq_III																			
A6_two-piece	-0.42	-0.18	-0.54		-0.91	-0.66	-1.02	-1.08		-1.13	0.36	-0.69	-0.41		-0.90	-0.53	-0.82	-0.64	0.40
B1_square																			
B2_keystone																			
B3_c13																			
B4_c13																			
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece																			
C1_square	-0.45	0.25	1.42	0.09		-0.34	-0.62	-0.56				-0.81					-0.31	-0.15	0.68
C2_keystone	0.08	-0.43	-0.14		1.12	-0.34	-0.60		-1.06	-1.41		-0.68	0.61		-0.32	-0.22	-0.32	-0.29	0.65
C3_c13	0.31	0.10	-0.82		0.27	0.06	-0.92	-0.49		2.62		0.65	-0.57	-0.04	-1.30	0.72	0.52	0.08	0.96
C4_c13	0.40	-0.84	-0.34		-2.35	-1.14	-0.51	-0.50		2.09		1.23	-0.24	0.00	-2.50	0.37	-0.85	-0.37	1.22
C5_seq_III	-0.83	-0.32	-0.60			-1.05	0.42			-0.08							-0.75	-0.46	0.51
C6_two-piece	0.07	-0.05	-0.16		0.10	-0.03	-0.97	-1.15		0.77	-0.18	-1.48	-1.17		-0.45	-0.32	0.02	-0.36	0.62
Yi MAXIMUM	-0.83	-0.84	1.42	0.09	-2.35	-1.14	-1.02	-1.15	-1.06	2.62	0.36	-1.48	-1.17	-0.04	-2.50	0.72	-0.85	-0.64	1.22
Yi MINIMUM	0.07	-0.05	-0.07	0.09	0.10	-0.03	-0.12	-0.49	-1.06	-0.08	-0.18	0.16	-0.24	0.00	-0.32	-0.22	0.02	0.03	0.25
Yi MEAN	-0.08	-0.19	-0.05	0.09	-0.36	-0.37	-0.43	-0.75	-1.06	0.48	0.09	-0.13	-0.36	-0.02	-1.09	0.00	-0.28		
Yi STD	0.43	0.34	0.72		1.33	0.50	0.57	0.33		1.66	0.38	0.92	0.65	0.03	0.87	0.52	0.46		

yi le	count	percent		
-3	0	0.0%		
-2	2	2.4%	-1 < yi ≤ 1	78.8%
-1	11	12.9%	-2 < yi ≤ 2	95.3%
0	45	52.9%	-3 < yi ≤ 3	100.0%
1	22	25.9%	>3	0.0%
2	3	3.5%		
3	2	2.4%	Overall Yi STD	0.80
total	85	100.0%	Parts Rated	9

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

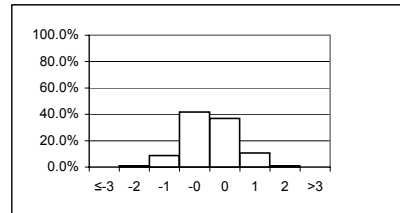
Rater = Castillo, George

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	-1.50	-0.51	1.30			0.71	0.27					-0.53					-0.95	-0.17	0.98
calibration_piston_2	-1.28	-0.28	-0.16			-0.19	-1.07					0.70					-1.41	-0.53	0.76
A1_square																			
A2_keystone																			
A3_c13																			
A4_c13	-1.51	0.09	0.42		-0.09	-1.14	0.87	1.46		-0.38		0.60	0.94	0.80	-0.44	-0.62	-0.98	0.00	0.89
A5_seq_III	-0.06	0.81	0.41			-0.59	0.27			-0.27							0.05	0.09	0.46
A6_two-piece	-0.63	0.39	0.20		-1.46	-0.16	0.00	0.78		0.97	0.97	-0.39	-0.41		-1.05	-0.53	-0.67	-0.14	0.74
B1_square																			
B2_keystone																			
B3_c13																			
B4_c13																			
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece																			
C1_square	-0.80	-0.03	-0.42	1.15		-2.07	0.98	0.65				-0.81					-1.07	-0.27	1.06
C2_keystone	0.29	-0.19	1.27		0.61	-0.43	1.08		2.83	-0.34		-0.17	0.18		-0.32	-0.22	-0.05	0.35	0.92
C3_c13	0.19	0.22	0.94		0.50	-0.13	1.43	1.45		0.06		0.02	-0.22	0.23	0.24	0.01	0.45	0.39	0.53
C4_c13	0.24	-0.52	1.03		-0.32	-1.00	0.89	0.93		-0.40		1.37	-0.24	-0.20	-0.37	-0.41	-0.23	0.06	0.71
C5_seq_III	-0.67	-0.17	-0.60			-1.00	-0.01			0.59							-0.54	-0.34	0.53
C6_two-piece	-0.42	-0.06	1.33		-0.52	0.20	-0.23	0.49		1.79	0.08	-0.56	0.22		-0.45	-0.32	0.15	0.12	0.69
Yi MAXIMUM	-1.51	0.81	1.33	1.15	-1.46	-2.07	1.43	1.46	2.83	1.79	0.97	1.37	0.94	0.80	-1.05	-0.62	-1.41	-0.53	1.06
Yi MINIMUM	-0.06	-0.03	-0.16	1.15	-0.09	-0.13	0.00	0.49	2.83	0.06	0.08	0.02	0.18	-0.20	0.24	0.01	-0.05	0.00	0.46
Yi MEAN	-0.56	-0.02	0.52	1.15	-0.21	-0.53	0.41	0.96	2.83	0.25	0.53	0.03	0.08	0.28	-0.40	-0.35	-0.48		
Yi STD	0.68	0.39	0.71		0.75	0.75	0.72	0.41		0.80	0.63	0.72	0.49	0.50	0.41	0.23	0.59		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	1	1.0%	-1 < yi ≤ 1	78.6%
-2 lt yi le -1	9	8.7%	-2 < yi ≤ 2	98.1%
-1 lt yi le 0	43	41.7%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	38	36.9%	>3	0.0%
1 lt yi le 2	11	10.7%		
2 lt yi le 3	1	1.0%	Overall Yi STD	0.80
3 lt yi	0	0.0%		
total	103	100.0%	Parts Rated	11

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

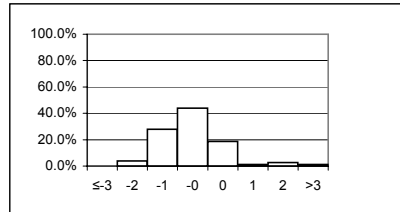
Rater = Clapperty, Leon

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD	
calibration_piston_1	-1.34	-0.24	-0.57			-0.95	-0.07					-1.08					-1.11	-0.77	0.48	
calibration_piston_2	-1.24	-0.38	-1.89			2.66	-0.36					0.43					-0.76	-0.22	1.47	
A1_square																				
A2_keystone																				
A3_c13																				
A4_c13	-1.27	-0.76	-1.72		-2.37	1.38	-1.10	-0.95		-0.91		-0.25	-0.76	0.80	-1.71	-1.58	-1.74	-0.92	1.01	
A5_seq_III																				
A6_two-piece																				
B1_square	-1.97	-0.25	0.27	-0.17		-0.42	-0.40	-0.59				-0.17					-0.98	-0.52	0.64	
B2_keystone	-0.12	0.08	-0.52		3.42	-0.67	-1.33		-0.60	-1.45		-0.05	0.65		0.90	-0.56	-0.32	-0.04	1.23	
B3_c13	-0.88	-1.75	-2.37		-1.37	-1.40	-2.22	-0.74		-0.60		-0.34	-0.68	-0.27	0.49	1.12	-1.96	-0.92	1.00	
B4_c13																				
B5-1_seq_V									0.40										0.40	
B5-2_seq_V									0.17										0.17	
B5-3_seq_V									0.16										0.16	
B5-4_seq_V									-0.73										-0.73	
B5-5_seq_V									0.99										0.99	
B5-6_seq_V									0.64										0.64	
B5-7_seq_V									0.68										0.68	
B5-8_seq_V									2.25										2.25	
B6_two-piece	-1.93	-0.45	-1.29		-1.35	-1.94	-1.86	-1.20		-0.81	0.67	-0.03	-0.31		-1.59	-0.29	-2.09	-1.03	0.85	
C1_square																				
C2_keystone																				
C3_c13																				
C4_c13																				
C5_seq_III																				
C6_two-piece																				
Yi MAXIMUM	-1.97	-1.75	-2.37	-0.17	3.42	2.66	-2.22	-1.20	2.25	-1.45	0.67	-1.08	-0.76	0.80	-1.71	-1.58	-2.09	2.25	1.47	
Yi MINIMUM	-0.12	0.08	0.27	-0.17	-1.35	-0.42	-0.07	-0.59	0.16	-0.60	0.67	-0.03	-0.31	-0.27	0.49	-0.29	-0.32	-0.04	0.48	
Yi MEAN	-1.25	-0.54	-1.15	-0.17	-0.42	-0.19	-1.05	-0.87	0.44	-0.94	0.67	-0.21	-0.27	0.26	-0.48	-0.33	-1.28			
Yi STD	0.63	0.59	0.92		2.60	1.63	0.81	0.26	0.89	0.36		0.46	0.65	0.76	1.37	1.11	0.66			

yi le	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	3	4.0%	-1 < yi ≤ 1	62.7%
-2 lt yi le -1	21	28.0%	-2 < yi ≤ 2	92.0%
-1 lt yi le 0	33	44.0%	-3 < yi ≤ 3	98.7%
0 lt yi le 1	14	18.7%	>3	1.3%
1 lt yi le 2	1	1.3%		
2 lt yi le 3	2	2.7%	Overall Yi STD	1.09
3 lt yi	1	1.3%		
total	75	100.0%	Parts Rated	15

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

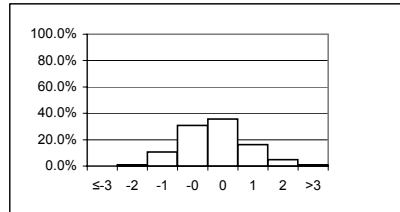
Rater = Cole, Steve

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	-0.32	-0.08	1.85			1.41	0.48					-1.35					0.16	0.31	1.07
calibration_piston_2	-0.04	-0.25	3.36			-0.62	1.65					-0.33					0.16	0.66	1.39
A1_square	-1.57	1.50	0.88	0.66		0.32	0.32	0.13				-0.03					-1.17	0.12	0.96
A2_keystone	-0.20	0.28	0.54		0.43	0.02	-0.27		0.27	-1.02		1.05	-0.12		-0.23	3.56	0.23	0.35	1.08
A3_c13	-0.89	0.47	1.02		0.02	-0.15	0.75	-0.89		-1.41		-0.53	0.05	-0.84	-0.32	1.49	-0.76	-0.14	0.83
A4_c13	-1.05	0.80	1.65		-0.68	-1.35	0.24	1.01		-1.48		-0.25	2.64	-0.42	0.33	0.26	-1.10	0.04	1.20
A5_seq_III	0.87	-0.75	2.46			0.51	1.11			-0.24							0.56	0.65	1.02
A6_two-piece	-0.13	1.14	0.47		-0.34	1.98	0.61	0.07		1.59	1.45	0.26	2.55		-1.20	2.40	0.36	0.80	1.09
B1_square																			
B2_keystone																			
B3_c13																			
B4_c13																			
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece																			
C1_square	0.93	0.99	0.68	0.09		0.97	1.73	1.11				0.85					1.46	0.98	0.46
C2_keystone	0.08	0.40	-0.54		0.46	-1.64	0.22		-0.50	-0.34		1.59	0.96		-0.32	-0.22	-0.05	0.01	0.79
C3_c13	-2.15	1.19	2.49		-0.02	-0.11	-1.31	-0.35		-0.68		0.80	2.19	-1.13	-0.53	-0.52	-1.02	-0.08	1.32
C4_c13																			
C5_seq_III																			
C6_two-piece																			
Yi MAXIMUM	-2.15	1.50	3.36	0.66	-0.68	1.98	1.73	1.11	-0.50	1.59	1.45	1.59	2.64	-1.13	-1.20	3.56	1.46	0.98	1.39
Yi MINIMUM	-0.04	-0.08	0.47	0.09	-0.02	0.02	0.22	0.07	0.27	-0.24	1.45	-0.03	0.05	-0.42	-0.23	-0.22	-0.05	0.01	0.46
Yi MEAN	-0.41	0.52	1.35	0.38	-0.02	0.12	0.50	0.18	-0.11	-0.51	1.45	0.27	1.38	-0.80	-0.38	1.16	-0.11		
Yi STD	0.95	0.69	1.13	0.40	0.44	1.09	0.86	0.78	0.55	1.05		0.86	1.25	0.36	0.50	1.61	0.82		

yi le	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	1	1.0%	-1 < yi ≤ 1	66.3%
-2 lt yi le -1	11	10.6%	-2 < yi ≤ 2	93.3%
-1 lt yi le 0	32	30.8%	-3 < yi ≤ 3	99.0%
0 lt yi le 1	37	35.6%	>3	1.0%
1 lt yi le 2	17	16.3%		
2 lt yi le 3	5	4.8%	Overall Yi STD	1.04
3 lt yi	1	1.0%		
total	104	100.0%	Parts Rated	11

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

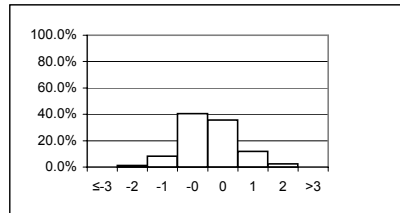
Rater = Edson, Carter

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	-0.03	-0.75	-0.55			-0.02	0.15					0.29					-0.45	-0.20	0.39
calibration_piston_2	0.49	-0.61	-0.73			-0.60	0.03					-2.05					-0.13	-0.51	0.81
A1_square																			
A2_keystone																			
A3_c13																			
A4_c13																			
A5_seq_III																			
A6_two-piece																			
B1_square																			
B2_keystone	-0.28	-0.72	-0.78		0.37	0.21	-0.07		0.08	-0.47		-1.14	0.03		-0.72	-0.56	-0.05	-0.32	0.45
B3_c13																			
B4_c13																			
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece																			
C1_square	-0.88	0.91	1.57	-0.19		0.56	-0.60	-1.26				0.85					0.01	0.11	0.94
C2_keystone	-0.08	0.81	-0.44		0.54	1.55	-0.12		-0.34	-0.59		-0.55	0.66		2.92	-0.22	0.88	0.39	1.01
C3_c13	-0.41	0.02	0.36		-0.69	0.20	0.78	1.56		-0.68		-0.75	-0.57	-1.13	-1.30	1.07	-0.32	-0.13	0.84
C4_c13	0.06	0.41	1.93		0.43	-0.11	1.05	1.34		-0.77		-0.38	-0.24	0.79	0.13	-0.41	0.51	0.34	0.75
C5_seq_III	1.69	0.05	0.49			2.03	0.19			-1.04							1.27	0.67	1.07
C6_two-piece	0.65	0.77	-1.33		1.15	0.93	0.41	-1.27		-0.42	-0.14	1.27	1.15		-0.45	-0.32	0.63	0.22	0.87
Yi MAXIMUM	1.69	0.91	1.93	-0.19	1.15	2.03	1.05	1.56	-0.34	-1.04	-0.14	-2.05	1.15	-1.13	2.92	1.07	1.27	0.67	1.07
Yi MINIMUM	-0.03	0.02	0.36	-0.19	0.37	-0.02	0.03	-1.26	0.08	-0.42	-0.14	0.29	0.03	0.79	0.13	-0.22	0.01	0.11	0.39
Yi MEAN	0.13	0.10	0.06	-0.19	0.36	0.53	0.20	0.09	-0.13	-0.66	-0.14	-0.31	0.20	-0.17	0.11	-0.09	0.26		
Yi STD	0.74	0.67	1.12		0.66	0.84	0.49	1.57	0.30	0.23		1.08	0.69	1.36	1.65	0.66	0.59		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	1	1.2%	-1 < yi ≤ 1	76.2%
-2 lt yi le -1	7	8.3%	-2 < yi ≤ 2	96.4%
-1 lt yi le 0	34	40.5%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	30	35.7%	>3	0.0%
1 lt yi le 2	10	11.9%		
2 lt yi le 3	2	2.4%	Overall Yi STD	0.89
3 lt yi	0	0.0%		
total	84	100.0%	Parts Rated	9

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

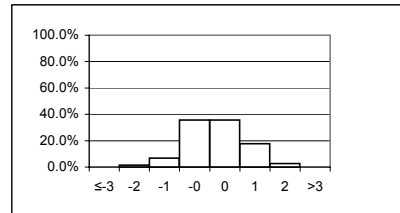
Rater = Engelskirchen, Jim

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	1.17	0.99	0.81			0.54	0.18					1.11					1.42	0.89	0.42
calibration_piston_2	0.65	0.22	0.34			1.07	-1.25					-0.27					0.64	0.20	0.76
A1_square	0.60	2.23	0.88	0.04		-0.32	0.01	-0.21				-0.70					0.68	0.36	0.87
A2_keystone	-0.13	-0.15	-0.13		0.83	0.24	0.89		-0.75	-0.61		-1.33	0.22		-0.23	0.88	0.49	0.02	0.67
A3_c13	0.52	-0.49	-0.62		-0.06	1.19	-0.48	0.31		1.41		-0.30	-0.45	-1.37	0.15	0.65	0.95	0.10	0.78
A4_c13	1.05	1.61	-0.26		1.20	-0.07	2.18	-0.24		1.59		0.17	-0.19	-2.25	0.84	0.82	1.88	0.60	1.16
A5_seq_III	1.90	0.81	0.36			-0.08	1.47			-0.48							1.80	0.82	0.94
A6_two-piece	0.51	0.84	-0.39		-0.54	-1.41	-0.60	-1.01		1.59	1.04	0.11	-0.41		0.18	-0.53	0.46	-0.01	0.84
B1_square																			
B2_keystone																			
B3_c13																			
B4_c13																			
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece																			
C1_square																			
C2_keystone																			
C3_c13																			
C4_c13																			
C5_seq_III																			
C6_two-piece																			
Yi MAXIMUM	1.90	2.23	0.88	0.04	1.20	-1.41	2.18	-1.01	-0.75	1.59	1.04	-1.33	-0.45	-2.25	0.84	0.88	1.88	0.89	1.16
Yi MINIMUM	-0.13	-0.15	-0.13	0.04	-0.06	-0.07	0.01	-0.21	-0.75	-0.48	1.04	0.11	-0.19	-1.37	0.15	-0.53	0.46	-0.01	0.42
Yi MEAN	0.78	0.76	0.12	0.04	0.36	0.15	0.30	-0.29	-0.75	0.70	1.04	-0.17	-0.21	-1.81	0.23	0.46	1.04		
Yi STD	0.60	0.90	0.56		0.80	0.83	1.14	0.54		1.14		0.76	0.31	0.62	0.44	0.66	0.58		

yi le	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	1	1.4%	-1 < yi ≤ 1	71.2%
-2 lt yi le -1	5	6.8%	-2 < yi ≤ 2	95.9%
-1 lt yi le 0	26	35.6%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	26	35.6%	>3	0.0%
1 lt yi le 2	13	17.8%		
2 lt yi le 3	2	2.7%	Overall Yi STD	0.88
3 lt yi	0	0.0%		
total	73	100.0%	Parts Rated	8

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

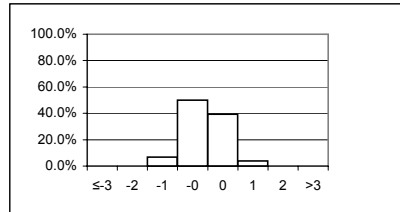
Rater = Foecking, Brian

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	-1.06	-1.25	1.28			0.39	0.18					0.02					-1.21	-0.24	0.96
calibration_piston_2	-0.41	-1.03	0.04			-0.93	-1.51					0.60					-1.40	-0.66	0.78
A1_square																			
A2_keystone																			
A3_c13																			
A4_c13																			
A5_seq_III																			
A6_two-piece																			
B1_square	0.27	-0.44	-1.20	-0.72		0.25	0.56	0.28				1.11					0.21	0.03	0.70
B2_keystone	0.46	0.08	-0.23		-0.97	-0.14	0.13		-0.83	0.05		-0.32	-0.67		-0.72	1.12	-0.15	-0.17	0.57
B3_c13	-0.24	-0.68	1.22		-0.50	-0.36	-0.42	0.74		-0.60		0.12	-0.68	-0.41	-0.47	0.42	-0.61	-0.18	0.58
B4_c13																			
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece																			
C1_square	-0.25	-1.08	-0.27	-0.83		0.14	1.23	0.53				-0.81					-0.24	-0.18	0.73
C2_keystone	0.08	0.40	0.97		-0.81	0.33	0.27		-0.39	0.03		-0.17	0.27		-0.32	-0.22	0.33	0.06	0.45
C3_c13	0.13	0.17	-1.00		0.10	-0.25	0.12	0.09		-0.68	0.10	0.49	-0.57	-0.59	0.24	1.07	-0.06	-0.05	0.53
C4_c13	-0.51	-0.06	-0.39		0.34	0.03	-0.45	-0.05		-0.63		0.50	-0.24	-0.39	0.78	0.37	-0.34	-0.07	0.43
C5_seq_III	-0.63	-0.24	-0.69			-0.14	0.73			0.00							-0.48	-0.20	0.48
C6_two-piece	-0.68	-0.80	0.27		-0.47	-0.06	0.31	0.14		-0.50	0.34	-1.48	-0.71		-0.45	-0.32	-0.44	-0.35	0.51
Yi MAXIMUM	-1.06	-1.25	1.28	-0.83	-0.97	-0.93	-1.51	0.74	-0.83	-0.68	0.34	-1.48	-0.71	-0.59	0.78	1.12	-1.40	-0.66	0.96
Yi MINIMUM	0.08	-0.06	0.04	-0.72	0.10	0.03	0.12	-0.05	-0.39	0.00	0.34	0.02	-0.24	-0.39	0.24	-0.22	-0.06	0.03	0.43
Yi MEAN	-0.26	-0.45	0.00	-0.77	-0.38	-0.07	0.10	0.29	-0.61	-0.33	0.34	0.01	-0.43	-0.46	-0.16	0.41	-0.40		
Yi STD	0.46	0.56	0.86	0.07	0.51	0.37	0.72	0.29	0.31	0.34		0.75	0.38	0.11	0.56	0.61	0.53		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	89.4%
-2 lt yi le -1	7	6.7%	-2 < yi ≤ 2	100.0%
-1 lt yi le 0	52	50.0%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	41	39.4%	>3	0.0%
1 lt yi le 2	4	3.8%		
2 lt yi le 3	0	0.0%	Overall Yi STD	0.59
3 lt yi	0	0.0%		
total	104	100.0%	Parts Rated	11

Yi distribution (excluding shaded columns)



Group: Blue

October 1-5, 2006

Heavy Duty Rating Workshop

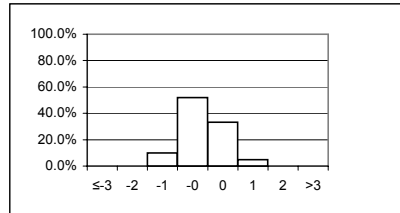
Rater = Greenland, Paul

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	0.56	-0.49	-0.05			-0.88	-0.14					0.02					-0.15	-0.16	0.44
calibration_piston_2	0.10	0.27	0.42			-0.09	0.40					-0.54					0.31	0.28	0.21
A1_square	-1.82	-0.79	-0.60	-0.10		-0.77	0.01	0.17				-0.70					-2.20	-0.76	0.80
A2_keystone	0.58	0.87	0.08		-1.07	-1.32	-0.72		1.15	0.43		-1.19	2.00		-0.23	-0.46	-0.86	-0.06	1.02
A3_c13	-0.62	-0.71	0.30		-0.23	-0.72	-0.51	0.79		-0.18	-0.23	-0.18	-0.45	0.73	-0.32	0.65	-0.85	-0.16	0.56
A4_c13	-0.64	0.50	0.73		-0.14	-1.19	-0.48	1.27		-0.38		-0.25	-0.76	-0.11	-0.69	-0.62	-0.66	-0.25	0.66
A5_seq_III	-0.92	0.30	-0.69			-0.73	-1.27			-0.58							-0.96	-0.69	0.49
A6_two-piece	-0.12	-0.88	0.85		-0.42	-0.16	0.66	0.43		-0.27	-1.33	-0.24	-0.41		-0.90	-0.53	-0.42	-0.27	0.60
B1_square	-1.18	0.88	0.83	0.35		-0.56	0.02	1.06				0.89					-0.65	0.18	0.82
B2_keystone																			
B3_c13																			
B4_c13																			
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece																			
C1_square																			
C2_keystone																			
C3_c13																			
C4_c13																			
C5_seq_III																			
C6_two-piece																			
Yi MAXIMUM	-1.82	-0.88	0.85	0.35	-1.07	-1.32	-1.27	1.27	1.15	-0.58	-1.33	-1.19	2.00	0.73	-0.90	0.65	-2.20	-0.76	1.02
Yi MINIMUM	0.10	0.27	-0.05	-0.10	-0.14	-0.09	0.01	0.17	1.15	-0.18	-1.33	0.02	-0.41	-0.11	-0.23	-0.46	-0.15	-0.06	0.21
Yi MEAN	-0.45	-0.01	0.21	0.12	-0.47	-0.71	-0.22	0.74	1.15	-0.20	-1.33	-0.14	0.10	0.31	-0.53	-0.24	-0.72		
Yi STD	0.81	0.71	0.58	0.32	0.42	0.41	0.59	0.45		0.38		0.66	1.28	0.60	0.31	0.60	0.69		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	85.2%
-2 lt yi le -1	8	9.9%	-2 < yi ≤ 2	100.0%
-1 lt yi le 0	42	51.9%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	27	33.3%	>3	0.0%
1 lt yi le 2	4	4.9%		
2 lt yi le 3	0	0.0%	Overall Yi STD	0.71
3 lt yi	0	0.0%		
total	81	100.0%	Parts Rated	9

Yi distribution (excluding shaded columns)



Group: Blue

October 1-5, 2006

Heavy Duty Rating Workshop

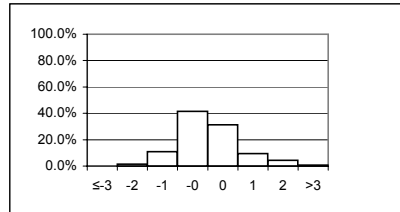
Rater = Hill, Howard

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	0.42	-0.84	0.63			-1.73	-0.43					0.15					-0.62	-0.34	0.82
calibration_piston_2	-0.78	-0.95	0.28			1.12	0.57					-2.05					-0.79	-0.37	1.08
A1_square	0.39	1.18	-0.06	-0.45		3.50	-0.98	-0.90				0.20					1.94	0.54	1.46
A2_keystone	-0.13	-1.64	2.15		1.48	-0.23	-1.27		0.08	0.17		1.33	-0.40		-0.23	-0.46	-0.23	0.05	1.06
A3_c13	0.49	1.28	-0.14		0.21	-1.04	-0.52	-1.50		-0.45		1.44	0.55	1.52	0.15	-0.18	-0.09	0.12	0.89
A4_c13																			
A5_seq_III																			
A6_two-piece																			
B1_square	1.29	0.42	-0.85	-0.77		-0.70	-0.52	0.12				0.47					-0.15	-0.08	0.72
B2_keystone	0.65	-1.53	2.12		0.23	-0.53	-0.92		0.99	-0.35		-0.05	0.37		0.90	2.81	-0.56	0.32	1.20
B3_c13	-0.86	0.79	0.26		0.55	-0.71	0.27	1.42		-0.64		1.81	-0.68	0.40	0.01	0.42	-0.59	0.17	0.82
B4_c13	-0.76	0.24	0.32		0.02	-0.56	-0.23	0.58		-0.94		0.92	0.13	0.06	-0.42	-0.26	-0.70	-0.11	0.54
B5-1_seq_V									-0.93										-0.93
B5-2_seq_V									-0.24										-0.24
B5-3_seq_V									-0.25										-0.25
B5-4_seq_V									-0.21										-0.21
B5-5_seq_V									-0.36										-0.36
B5-6_seq_V									-1.83										-1.83
B5-7_seq_V									-1.98										-1.98
B5-8_seq_V									-1.12										-1.12
B6_two-piece	-0.50	0.04	-0.06		-0.86	0.47	0.40	0.03		-1.47	-2.59	2.21	-1.12		-0.83	1.35	-1.45	-0.31	1.23
C1_square	-0.67	-0.47	-1.12	-0.97		-0.74	-1.73	-1.60				-0.81					-1.18	-1.03	0.42
C2_keystone	0.38	1.87	2.15		2.37	-1.49	-0.92		0.32	0.00		1.85	0.61		-0.32	-0.22	1.19	0.60	1.22
C3_c13	0.18	0.00	-0.11		-0.25	-0.14	-0.20	-0.93		-0.18		2.05	0.12	1.33	-0.53	0.36	-0.10	0.11	0.75
C4_c13																			
C5_seq_III																			
C6_two-piece																			
Yi MAXIMUM	1.29	1.87	2.15	-0.97	2.37	3.50	-1.73	-1.60	-1.98	-1.47	-2.59	2.21	-1.12	1.52	0.90	2.81	1.94	-1.98	1.46
Yi MINIMUM	-0.13	0.00	-0.06	-0.45	0.02	-0.14	-0.20	0.03	0.08	0.00	-2.59	-0.05	0.12	0.06	0.01	-0.18	-0.09	0.05	0.42
Yi MEAN	0.01	0.03	0.43	-0.73	0.47	-0.21	-0.50	-0.35	-0.50	-0.48	-2.59	0.73	-0.05	0.83	-0.16	0.48	-0.26		
Yi STD	0.67	1.09	1.08	0.26	1.02	1.34	0.67	1.06	0.89	0.53		1.25	0.62	0.71	0.53	1.10	0.92		

yi le -3	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	2	1.5%	-1 < yi ≤ 1	73.0%
-2 lt yi le -1	15	10.9%	-2 < yi ≤ 2	93.4%
-1 lt yi le 0	57	41.6%	-3 < yi ≤ 3	99.3%
0 lt yi le 1	43	31.4%	>3	0.7%
1 lt yi le 2	13	9.5%		
2 lt yi le 3	6	4.4%	Overall Yi STD	1.02
3 lt yi	1	0.7%		
total	137	100.0%	Parts Rated	21

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

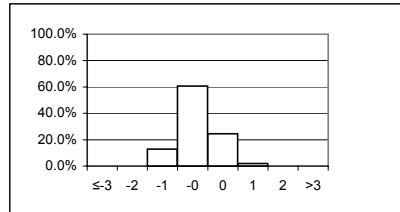
Rater = Holland, Steve

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	-0.36	-0.82	0.47			-1.91	-0.30					0.29					-1.07	-0.53	0.82
calibration_piston_2	0.92	-0.55	-1.34			-1.36	-0.30					-0.48					-0.02	-0.45	0.79
A1_square																			
A2_keystone	-0.39	0.36	0.32		-0.55	-0.54	-0.09		-0.02	0.21		-0.35	-0.33		-0.23	-0.46	-0.52	-0.20	0.33
A3_c13																			
A4_c13																			
A5_seq_III	-0.79	-0.85	-0.17			-0.70	-0.06										-1.20	-0.62	0.40
A6_two-piece	-0.61	-0.93	-0.20		-0.09	-1.42	-1.00	-0.86		-1.51	-1.00	-0.39	-0.41		-0.13	0.94	-0.98	-0.61	0.64
B1_square																			
B2_keystone																			
B3_c13																			
B4_c13																			
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece																			
C1_square	-0.91	-0.69	0.18	-0.97		-0.46	-0.60	-0.89				0.85					-0.98	-0.50	0.62
C2_keystone	0.08	0.45	-0.64		-0.01	-0.13	0.01		0.42	0.08		-0.17	0.74		-0.32	-0.22	0.29	0.04	0.37
C3_c13	-0.69	-0.88	0.57		-0.02	-0.74	-0.25	1.15		-0.68	-0.02	0.18	1.50	0.51	0.24	0.36	-0.69	0.04	0.74
C4_c13	-1.73	-1.32	0.59		-0.67	-0.46	-0.12	0.68		-0.77		-0.67	0.79	0.20	-0.20	1.93	-1.51	-0.23	1.01
C5_seq_III	-0.11	-0.20	0.58			-1.10	-0.33			-0.37							-0.31	-0.26	0.49
C6_two-piece	-1.19	-1.34	-0.60		-1.72	-0.36	-0.81	-0.25		-1.53	-0.20	0.36	0.22		-0.45	-0.32	-1.46	-0.69	0.66
Yi MAXIMUM	-1.73	-1.34	-1.34	-0.97	-1.72	-1.91	-1.00	1.15	0.42	-1.53	-1.00	0.85	1.50	0.51	-0.45	1.93	-1.51	-0.69	1.01
Yi MINIMUM	0.08	-0.20	-0.17	-0.97	-0.01	-0.13	0.01	-0.25	-0.02	0.08	-0.20	-0.17	0.22	0.20	-0.13	-0.22	-0.02	0.04	0.33
Yi MEAN	-0.52	-0.61	-0.02	-0.97	-0.51	-0.83	-0.35	-0.03	0.20	-0.65	-0.60	-0.04	0.42	0.35	-0.18	0.37	-0.77		
Yi STD	0.69	0.60	0.63		0.66	0.54	0.32	0.92	0.31	0.64	0.57	0.49	0.73	0.22	0.24	0.92	0.58		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	85.3%
-2 lt yi le -1	13	12.7%	-2 < yi ≤ 2	100.0%
-1 lt yi le 0	62	60.8%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	25	24.5%	>3	0.0%
1 lt yi le 2	2	2.0%		
2 lt yi le 3	0	0.0%	Overall Yi STD	0.65
3 lt yi	0	0.0%		
total	102	100.0%	Parts Rated	11

Yi distribution (excluding shaded columns)



Group: Blue

October 1-5, 2006

Heavy Duty Rating Workshop

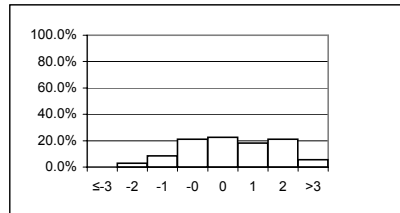
Rater = Klapka, AI

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	1.45	-0.10	-0.44			0.61	-1.66					1.11					0.50	0.21	1.05
calibration_piston_2	2.09	0.59	2.10			-2.16	-1.65					-0.16					1.28	0.30	1.71
A1_square																			
A2_keystone	3.87	-1.26	0.23		3.09	2.00	2.59		-1.09	3.15		0.21	-1.49		-0.23	-0.46	3.32	1.07	1.97
A3_c13	2.22	0.07	2.98		1.72	0.92	-0.49	0.30		-0.52		0.98	-0.45	0.73	1.07	-1.02	2.24	0.77	1.20
A4_c13	1.50	-2.64	2.05		2.01	2.06	2.10	-0.20		-0.72		1.67	0.37	1.41	1.86	1.62	1.83	1.06	1.39
A5_seq_III																			
A6_two-piece																			
B1_square																			
B2_keystone																			
B3_c13																			
B4_c13	2.39	1.90	0.00		3.27	0.54	0.75	0.26		-0.44		2.12	2.96	0.37	-0.42	-0.26	2.18	1.12	1.30
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece	1.99	0.01	2.54		2.20	0.76	1.15	-1.55		-0.21	-0.13	1.83	-0.31		1.89	1.75	2.37	1.02	1.26
C1_square																			
C2_keystone																			
C3_c13																			
C4_c13																			
C5_seq_III																			
C6_two-piece																			
Yi MAXIMUM	3.87	-2.64	2.98		3.27	-2.16	2.59	-1.55	-1.09	3.15	-0.13	2.12	2.96	1.41	1.89	1.75	3.32	1.12	1.97
Yi MINIMUM	1.45	0.01	0.00		1.72	0.54	-0.49	-0.20	-1.09	-0.21	-0.13	-0.16	-0.31	0.37	-0.23	-0.26	0.50	0.21	1.05
Yi MEAN	2.22	-0.21	1.35		2.46	0.68	0.40	-0.30	-1.09	0.25	-0.13	1.11	0.22	0.84	0.83	0.33	1.96		
Yi STD	0.81	1.43	1.38		0.68	1.40	1.71	0.87		1.63		0.85	1.67	0.53	1.11	1.27	0.89		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	2	2.8%	-1 < yi ≤ 1	43.7%
-2 lt yi le -1	6	8.5%	-2 < yi ≤ 2	70.4%
-1 lt yi le 0	15	21.1%	-3 < yi ≤ 3	94.4%
0 lt yi le 1	16	22.5%	>3	5.6%
1 lt yi le 2	13	18.3%		
2 lt yi le 3	15	21.1%	Overall Yi STD	1.43
3 lt yi	4	5.6%		
total	71	100.0%	Parts Rated	7

Yi distribution (excluding shaded columns)



Group: Yellow

October 1-5, 2006

Heavy Duty Rating Workshop

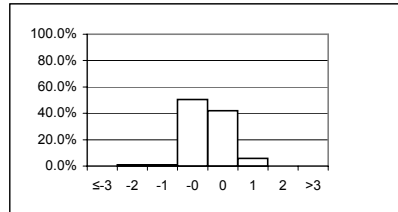
Rater = Kobrinetz, Jack

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	-0.25	-0.68	-0.47			0.51	-0.07					-2.17					-0.50	-0.52	0.82
calibration_piston_2	0.22	-0.33	-0.10			0.86	0.78					0.81					0.31	0.36	0.47
A1_square	-0.44	0.55	0.21	0.73		0.40	-0.37	-0.21				-0.70					-0.19	0.00	0.49
A2_keystone	-0.33	0.87	0.11		0.20	-0.27	0.60		0.27	0.21		-0.35	1.18		-0.23	0.88	0.26	0.26	0.50
A3_c13	-0.40	-0.53	0.06		-0.22	0.02	-0.11	1.31		0.64	-0.22	-0.07	-0.45	-0.06	-0.78	0.65	-0.19	-0.01	0.55
A4_c13	-0.61	0.26	0.14		-0.03	-0.55	-0.41	0.40		0.80		-0.25	-0.76	-1.33	-0.44	0.82	-0.32	-0.16	0.60
A5_seq_III	-0.06	-0.27	-0.69			-0.30	0.29			1.52							0.05	0.08	0.71
A6_two-piece	-0.34	0.89	0.45		0.04	0.01	0.73	0.50		1.26	-0.27	-0.59	-0.11		0.02	-0.53	-0.04	0.15	0.55
B1_square																			
B2_keystone																			
B3_c13																			
B4_c13	-0.51	-0.67	1.32		-0.48	-0.56	-0.35	0.36		1.29		-0.56	-0.68	-0.35	-0.42	-0.26	-0.48	-0.17	0.67
B5-1_seq_V									0.77									0.77	
B5-2_seq_V									0.65									0.65	
B5-3_seq_V									0.44									0.44	
B5-4_seq_V									0.65									0.65	
B5-5_seq_V									0.43									0.43	
B5-6_seq_V									0.23									0.23	
B5-7_seq_V									-0.01									-0.01	
B5-8_seq_V									-0.28									-0.28	
B6_two-piece	-0.11	0.69	0.07		-0.21	0.80	0.34	0.35		0.99	0.60	-0.22	-0.31		-0.23	0.94	0.35	0.29	0.46
C1_square																			
C2_keystone																			
C3_c13																			
C4_c13																			
C5_seq_III																			
C6_two-piece																			
Yi MAXIMUM	-0.61	0.89	1.32	0.73	-0.48	0.86	0.78	1.31	0.77	1.52	0.60	-2.17	1.18	-1.33	-0.78	0.94	-0.50	0.77	0.82
Yi MINIMUM	-0.06	0.26	0.06	0.73	-0.03	0.01	-0.07	-0.21	-0.01	0.21	-0.27	-0.07	-0.11	-0.06	0.02	-0.26	-0.04	0.00	0.46
Yi MEAN	-0.28	0.08	0.11	0.73	-0.12	0.09	0.14	0.45	0.35	0.96	0.17	-0.45	-0.19	-0.58	-0.35	0.42	-0.07		
Yi STD	0.24	0.64	0.54		0.24	0.53	0.46	0.49	0.34	0.45	0.61	0.78	0.71	0.67	0.27	0.64	0.31		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	1	1.0%	-1 < yi ≤ 1	92.4%
-2 lt yi le -1	1	1.0%	-2 < yi ≤ 2	99.0%
-1 lt yi le 0	53	50.5%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	44	41.9%	>3	0.0%
1 lt yi le 2	6	5.7%		
2 lt yi le 3	0	0.0%	Overall Yi STD	0.61
3 lt yi	0	0.0%		
total	105	100.0%	Parts Rated	18

Yi distribution (excluding shaded columns)



Group: Blue

October 1-5, 2006

Heavy Duty Rating Workshop

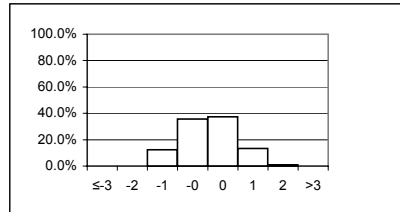
Rater = Langford, Mike

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	0.92	-0.41	-0.52			-0.19	-0.09					1.11					0.22	0.15	0.64
calibration_piston_2	0.86	-0.19	-1.17			0.88	0.54					0.60					0.79	0.33	0.76
A1_square																			
A2_keystone																			
A3_c13																			
A4_c13																			
A5_seq_III																			
A6_two-piece																			
B1_square	0.27	-0.61	0.69	-0.14		-0.75	0.44	0.34				1.11					-0.62	0.08	0.65
B2_keystone	0.39	0.48	-0.96		-0.50	0.11	1.00		-1.29	-0.13		-1.14	-1.08		-0.72	-0.56	0.35	-0.31	0.73
B3_c13	1.87	1.31	-0.20		0.16	-0.04	0.06	-0.32		-0.28		1.35	-0.68	-0.14	0.49	1.83	0.71	0.44	0.84
B4_c13																			
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece																			
C1_square	-0.45	0.46	-1.07	-0.62		2.28	-1.27	0.28				-0.81					0.66	-0.06	1.11
C2_keystone	0.08	0.16	-0.73		1.45	0.16	0.59		-0.60	0.51		-0.55	-0.12		-0.32	-0.22	0.25	0.05	0.59
C3_c13	0.96	0.05	0.46		1.22	0.05	0.07	-0.39		0.97		-0.29	-1.26	-0.59	1.79	0.36	1.01	0.32	0.82
C4_c13	0.09	0.37	-0.35		1.46	-0.78	-0.28	-0.50		-0.48		0.50	-1.27	-1.77	1.11	1.15	0.02	-0.05	0.92
C5_seq_III	-1.03	0.01	0.16			0.40	-0.77			-0.34							-0.70	-0.32	0.53
C6_two-piece	0.38	1.49	0.09		0.42	-0.25	1.19	0.73		-1.05	1.13	-1.48	-1.63		0.56	1.62	0.57	0.27	1.04
Yi MAXIMUM	1.87	1.49	-1.17	-0.62	1.46	2.28	-1.27	0.73	-1.29	-1.05	1.13	-1.48	-1.63	-1.77	1.79	1.83	1.01	0.44	1.11
Yi MINIMUM	0.08	0.01	0.09	-0.14	0.16	-0.04	0.06	0.28	-0.60	-0.13	1.13	-0.29	-0.12	-0.14	-0.32	-0.22	0.02	0.05	0.53
Yi MEAN	0.39	0.28	-0.33	-0.38	0.70	0.17	0.13	0.02	-0.94	-0.11	1.13	0.04	-1.01	-0.83	0.49	0.70	0.30		
Yi STD	0.77	0.65	0.63	0.33	0.80	0.84	0.73	0.50	0.49	0.67		1.02	0.53	0.84	0.92	0.99	0.55		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	73.1%
-2 lt yi le -1	13	12.5%	-2 < yi ≤ 2	99.0%
-1 lt yi le 0	37	35.6%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	39	37.5%	>3	0.0%
1 lt yi le 2	14	13.5%		
2 lt yi le 3	1	1.0%	Overall Yi STD	0.83
3 lt yi	0	0.0%		
total	104	100.0%	Parts Rated	11

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

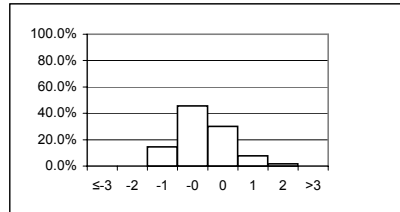
Rater = Lenzing, Heinz

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD	
calibration_piston_1	0.72	-0.79	0.44			1.05	-0.21					1.11					0.09	0.34	0.69	
calibration_piston_2	0.98	-0.42	0.61			-0.36	0.10					0.70					0.48	0.30	0.54	
A1_square	0.36	-0.59	0.14	-0.65		-0.75	-1.13	-0.98				-0.03					-0.16	-0.42	0.52	
A2_keystone	0.06	0.51	-0.74		-0.60	0.03	-1.37		0.27	0.17		-0.35	0.97		-0.23	-0.46	-0.17	-0.15	0.59	
A3_c13	0.61	-0.31	0.37		-1.02	-0.07	0.62	-0.98		-1.13		0.75	0.55	-0.06	-0.32	0.65	-0.05	-0.03	0.66	
A4_c13	0.86	-0.64	0.05		-0.66	0.57	-0.98	-1.09		-0.84		1.67	-0.76	0.49	-0.44	0.82	-0.11	-0.07	0.84	
A5_seq_III	0.73	-0.21	-0.27			0.16	-1.40			-0.29							0.35	-0.13	0.67	
A6_two-piece	-0.53	0.50	1.70		1.60	0.17	2.04	1.38		-0.17	-1.20	-0.19	-0.41		2.17	-0.53	0.12	0.48	1.09	
B1_square																				
B2_keystone																				
B3_c13																				
B4_c13																				
B5-1_seq_V																				
B5-2_seq_V																				
B5-3_seq_V																				
B5-4_seq_V																				
B5-5_seq_V																				
B5-6_seq_V																				
B5-7_seq_V																				
B5-8_seq_V																				
B6_two-piece																				
C1_square	-0.36	-1.31	-0.42	-0.62		-1.10	0.53	-0.97				-0.81					-1.06	-0.68	0.56	
C2_keystone	0.08	0.21	-1.26		-0.86	-0.35	-1.82		-1.62	-0.11	-0.86	-0.17	0.53		-0.32	-0.22	-0.04	-0.46	0.72	
C3_c13	1.77	-1.40	-0.41		-0.13	0.17	-0.83	-1.58		-0.51	-0.13	-0.29	-0.57	-0.04	-0.53	1.43	0.51	-0.17	0.93	
C4_c13	1.39	-1.36	0.48		-0.70	1.19	-0.66	-1.09		-1.61		0.21	-0.24	0.79	-0.20	-0.41	0.38	-0.13	0.92	
C5_seq_III																				
C6_two-piece																				
Yi MAXIMUM	1.77	-1.40	1.70	-0.65	1.60	1.19	2.04	-1.58	-1.62	-1.61	-1.20	1.67	0.97	0.79	2.17	1.43	-1.06	-0.68	1.09	
Yi MINIMUM	0.06	0.21	0.05	-0.62	-0.13	0.03	0.10	-0.97	0.27	-0.11	-1.20	-0.03	-0.24	-0.04	-0.20	-0.22	-0.04	-0.03	0.52	
Yi MEAN	0.55	-0.48	0.06	-0.63	-0.34	0.06	-0.43	-0.76	-0.67	-0.56	-1.20	0.24	0.01	0.30	0.02	0.18	0.03			
Yi STD	0.68	0.67	0.76	0.03	0.90	0.67	1.10	0.97	1.34	0.59		0.74	0.66	0.42	0.96	0.78	0.42			

yi le	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	75.9%
-2 lt yi le -1	17	14.7%	-2 < yi ≤ 2	98.3%
-1 lt yi le 0	53	45.7%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	35	30.2%	>3	0.0%
1 lt yi le 2	9	7.8%		
2 lt yi le 3	2	1.7%	Overall Yi STD	0.84
3 lt yi	0	0.0%		
total	116	100.0%	Parts Rated	12

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

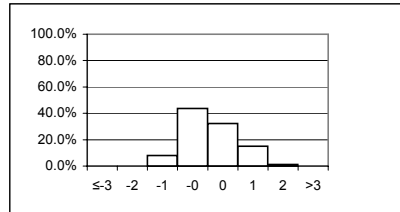
Rater = Lopez, Frank

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	0.77	-0.44	1.54			-0.77	0.16					1.38					0.14	0.40	0.88
calibration_piston_2	1.03	-0.22	0.72			-0.40	0.49					0.70					0.71	0.43	0.53
A1_square																			
A2_keystone																			
A3_c13																			
A4_c13																			
A5_seq_III																			
A6_two-piece																			
B1_square	0.60	-0.20	-0.01	-0.26		1.52	1.28	0.31				0.47					1.41	0.57	0.69
B2_keystone	0.65	1.28	1.43		0.15	-0.34	0.10		1.10	1.78		1.32	0.17		-0.72	-0.56	0.43	0.52	0.81
B3_c13	-1.32	0.56	0.03		0.62	-0.08	0.42	0.84		-0.42		-1.58	-0.68	-1.22	-0.47	-0.29	-0.42	-0.29	0.75
B4_c13	-1.26	-0.21	0.26		0.05	-0.73	-0.32	0.92		2.13		-0.83	-0.68	-1.07	-0.42	-0.26	-0.61	-0.22	0.88
B5-1_seq_V									-0.67										-0.67
B5-2_seq_V									-0.33										-0.33
B5-3_seq_V									-0.47										-0.47
B5-4_seq_V									-0.59										-0.59
B5-5_seq_V									-0.60										-0.60
B5-6_seq_V									-0.74										-0.74
B5-7_seq_V									-0.70										-0.70
B5-8_seq_V									-0.98										-0.98
B6_two-piece	-0.36	-0.05	0.63		-0.10	0.16	-0.64	0.17		1.83	-1.74	-0.03	-1.12		0.44	-0.70	-0.03	-0.11	0.84
C1_square																			
C2_keystone																			
C3_c13																			
C4_c13																			
C5_seq_III																			
C6_two-piece	1.46	0.57	-0.53		0.32	-0.10	0.37	-0.56		0.35	-0.98	1.27	-0.71		-0.45	-0.32	0.49	0.08	0.73
Yi MAXIMUM	1.46	1.28	1.54	-0.26	0.62	1.52	1.28	0.92	1.10	2.13	-1.74	-1.58	-1.12	-1.22	-0.72	-0.70	1.41	-0.98	0.88
Yi MINIMUM	-0.36	-0.05	-0.01	-0.26	0.05	-0.08	0.10	0.17	-0.33	0.35	-0.98	-0.03	0.17	-1.07	-0.42	-0.26	-0.03	0.08	0.53
Yi MEAN	0.20	0.16	0.51	-0.26	0.21	-0.09	0.23	0.33	-0.44	1.13	-1.36	0.34	-0.61	-1.14	-0.32	-0.43	0.26		
Yi STD	1.05	0.59	0.72		0.28	0.73	0.57	0.60	0.61	1.11	0.53	1.09	0.47	0.10	0.45	0.20	0.65		

yi le -3	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	75.9%
-2 lt yi le -1	7	8.0%	-2 < yi ≤ 2	98.9%
-1 lt yi le 0	38	43.7%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	28	32.2%	>3	0.0%
1 lt yi le 2	13	14.9%		
2 lt yi le 3	1	1.1%	Overall Yi STD	0.84
3 lt yi	0	0.0%		
total	87	100.0%	Parts Rated	16

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

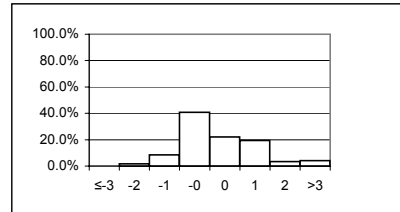
Rater = Lowsky, John

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD	
calibration_piston_1	-1.61	1.20	0.29			-2.52	-0.39					0.56					-0.71	-0.46	1.29	
calibration_piston_2	-2.11	1.74	0.28			-0.47	-0.36					0.06						-0.78	-0.24	1.17
A1_square	-0.83	0.79	3.11	3.49		0.31	3.07	3.22				-0.03					-0.10	1.45	1.74	
A2_keystone	-0.39	0.32	1.91		-0.73	-0.65	-0.83		2.47	0.47		0.35	-0.33		-0.23	-0.46	-0.69	0.09	1.03	
A3_c13	-0.82	-1.24	-0.03		-1.83	-0.93	-0.31	1.24		1.05		1.21	-0.95	1.52	-1.71	-0.18	-1.21	-0.30	1.14	
A4_c13	-0.74	-0.98	0.07		-1.17	-0.27	-0.53	1.27		0.67		0.82	0.94	-0.72	-1.20	0.66	-0.98	-0.15	0.87	
A5_seq_III																				
A6_two-piece																				
B1_square	-1.39	0.02	1.38	0.38		-0.66	1.93	0.56				0.04					-0.92	0.15	1.07	
B2_keystone	-0.80	0.88	1.64		-0.39	3.44	0.23		2.58	1.91		-0.59	-0.39		-0.72	-0.56	3.65	0.84	1.63	
B3_c13	0.71	-0.89	1.12		-0.93	1.08	-0.68	1.17		0.41		1.35	-0.68	0.54	-0.71	-1.00	0.71	0.16	0.91	
B4_c13	1.67	-0.96	1.14		-0.72	2.26	-0.04	1.75		-0.11		1.20	-0.88	1.81	-0.42	-0.26	1.74	0.58	1.17	
B5-1_seq_V									-0.55									-0.55		
B5-2_seq_V									0.05									0.05		
B5-3_seq_V									-0.29									-0.29		
B5-4_seq_V									-0.54									-0.54		
B5-5_seq_V									-1.44									-1.44		
B5-6_seq_V									-0.57									-0.57		
B5-7_seq_V									-0.69									-0.69		
B5-8_seq_V									-0.73									-0.73		
B6_two-piece	-0.24	-0.43	1.04		-1.32	0.24	1.06	2.25		0.06	0.42	-0.78	-0.31		-1.76	-0.70	-0.93	-0.10	1.06	
C1_square																				
C2_keystone																				
C3_c13																				
C4_c13																				
C5_seq_III																				
C6_two-piece																				
Yi MAXIMUM	-2.11	1.74	3.11	3.49	-1.83	3.44	3.07	3.22	2.58	1.91	0.42	1.35	-0.95	1.81	-1.76	-1.00	3.65	1.45	1.74	
Yi MINIMUM	-0.24	0.02	-0.03	0.38	-0.39	0.24	-0.04	0.56	0.05	0.06	0.42	-0.03	-0.31	0.54	-0.23	-0.18	-0.10	0.05	0.87	
Yi MEAN	-0.60	0.04	1.09	1.93	-1.01	0.17	0.29	1.64	0.03	0.64	0.42	0.38	-0.37	0.79	-0.97	-0.36	-0.02			
Yi STD	1.06	1.02	0.93	2.20	0.47	1.62	1.24	0.87	1.37	0.68		0.72	0.63	1.14	0.61	0.53	1.50			

yi le	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	2	1.7%	-1 < yi ≤ 1	62.7%
-2 lt yi le -1	10	8.5%	-2 < yi ≤ 2	90.7%
-1 lt yi le 0	48	40.7%	-3 < yi ≤ 3	95.8%
0 lt yi le 1	26	22.0%	>3	4.2%
1 lt yi le 2	23	19.5%		
2 lt yi le 3	4	3.4%	Overall Yi STD	1.23
3 lt yi	5	4.2%		
total	118	100.0%	Parts Rated	19

Yi distribution (excluding shaded columns)



Group: Yellow

October 1-5, 2006

Heavy Duty Rating Workshop

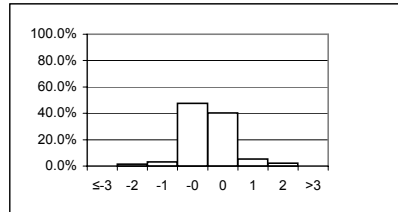
Rater = May, Marianne

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	0.08	-0.89	-0.36			0.34	-0.13					0.02					-0.47	-0.20	0.41
calibration_piston_2	-0.09	-0.49	-0.57			0.41	0.46					1.03					-0.21	0.08	0.58
A1_square	-0.43	0.70	-0.80	-0.51		0.49	-0.37	-0.52				0.42					-0.21	-0.14	0.53
A2_keystone	-0.39	0.76	-0.07		-0.66	-0.27	0.79		-0.41	-0.33		-0.63	-0.40		-0.23	-0.46	-0.19	-0.19	0.46
A3_c13	0.15	1.55	-0.29		0.18	0.54	0.95	0.42		-1.00	0.18	0.05	0.55	-0.32	-0.32	0.65	0.44	0.25	0.63
A4_c13	0.75	0.61	-0.23		0.23	0.17	-0.22	0.13		-0.78		0.17	-0.19	-0.72	-0.18	0.98	0.47	0.08	0.51
A5_seq_III	1.33	-0.51	-0.64			-0.49	-0.60			-0.25							0.59	-0.08	0.75
A6_two-piece	-0.33	0.19	-0.62		-0.28	0.34	0.45	0.14		-0.43	1.31	-0.44	2.55		-0.13	-0.53	-0.19	0.15	0.86
B1_square	0.85	-0.69	-1.06	0.10		-0.48	0.14	-0.50				1.32					-0.27	-0.07	0.76
B2_keystone	0.39	0.08	-0.36		-0.96	-0.53	0.05		0.19	0.44		-0.05	-0.67		-0.72	1.12	-0.56	-0.12	0.58
B3_c13	-0.59	0.55	1.60		0.62	-0.45	0.76	0.22		-0.49		-0.19	0.12	0.00	-0.47	0.42	-0.31	0.13	0.62
B4_c13	-0.18	0.30	0.83		0.24	-0.43	0.23	0.18		-0.78		0.18	0.13	-0.35	-0.42	-0.26	-0.27	-0.04	0.41
B5-1_seq_V									-1.81									-1.81	
B5-2_seq_V									-2.65									-2.65	
B5-3_seq_V									-2.94									-2.94	
B5-4_seq_V									-2.01									-2.01	
B5-5_seq_V									-1.81									-1.81	
B5-6_seq_V									-1.27									-1.27	
B5-7_seq_V									-1.11									-1.11	
B5-8_seq_V									-0.77									-0.77	
B6_two-piece	-0.29	0.91	0.13		0.20	0.38	0.90	-0.36		-0.21	0.69	-0.03	0.51		-0.15	0.12	0.43	0.23	0.42
C1_square	2.69	1.54	-0.22	0.87		0.31	-0.10	0.61				2.51					1.90	1.12	1.09
C2_keystone	0.08	0.35	-0.57		-0.01	-0.33	0.66		-0.29	0.82		-0.17	0.87		-0.32	-0.22	0.20	0.08	0.47
C3_c13	-0.09	0.82	0.42		0.43	0.19	1.80	0.24		-0.51	0.43	-0.13	0.12	-0.86	-0.53	0.01	0.29	0.16	0.65
C4_c13	-0.38	0.41	-0.30		-0.37	-0.27	0.75	0.01		-0.77		-0.52	0.79	-1.38	-0.86	-0.41	-0.37	-0.26	0.60
C5_seq_III																			
C6_two-piece	0.51	1.72	1.33		-0.12	0.71	0.07	2.02		-0.58	0.44	-0.10	0.22		-0.45	-0.32	0.69	0.44	0.80
Yi MAXIMUM	2.69	1.72	1.60	0.87	-0.96	0.71	1.80	2.02	-2.94	-1.00	1.31	2.51	2.55	-1.38	-0.86	1.12	1.90	-2.94	1.09
Yi MINIMUM	0.08	0.08	-0.07	0.10	-0.01	0.17	0.05	0.01	0.19	-0.21	0.44	0.02	0.12	0.00	-0.13	-0.01	-0.19	-0.04	0.41
Yi MEAN	0.23	0.44	-0.10	0.15	-0.04	0.04	0.37	0.22	-1.35	-0.37	0.81	0.20	0.38	-0.61	-0.40	0.09	0.11		
Yi STD	0.80	0.76	0.72	0.69	0.46	0.43	0.58	0.67	0.99	0.51	0.45	0.77	0.82	0.49	0.23	0.57	0.59		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	3	1.6%	-1 < yi ≤ 1	88.0%
-2 lt yi le -1	6	3.1%	-2 < yi ≤ 2	96.3%
-1 lt yi le 0	91	47.6%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	77	40.3%	>3	0.0%
1 lt yi le 2	10	5.2%		
2 lt yi le 3	4	2.1%	Overall Yi STD	0.78
3 lt yi	0	0.0%		
total	191	100.0%	Parts Rated	26

Yi distribution (excluding shaded columns)



Group: Red

October 1-5, 2006

Heavy Duty Rating Workshop

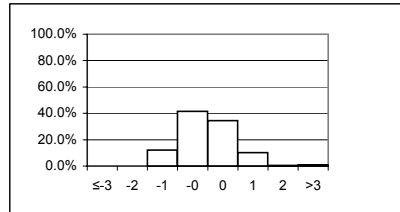
Rater = Mundt, Matthias

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD	
calibration_piston_1	-1.53	-0.41	0.29			0.66	-0.10					-1.62					-1.03	-0.54	0.89	
calibration_piston_2	-1.28	-0.54	0.60			0.84	0.66					0.16						-0.97	-0.08	0.85
A1_square	1.13	-0.98	0.21	-0.45		-0.34	0.87	1.03				0.42					0.94	0.32	0.76	
A2_keystone	-0.39	1.15	-0.30		-0.60	-0.69	0.67		-0.95	-1.34		-1.33	1.31		-0.23	-0.46	-0.32	-0.27	0.84	
A3_c13	0.30	-0.23	-0.95		0.28	1.02	-0.92	-0.27		0.17	0.28	-0.41	-1.45	-1.37	0.61	0.65	0.54	-0.14	0.79	
A4_c13	-0.55	0.25	-0.65		0.21	0.36	-0.71	-0.90		0.67		-0.25	-0.76	-0.42	0.07	-0.78	-0.12	-0.26	0.50	
A5_seq_III	-1.09	0.44	-0.56			-0.48	0.02			-0.53							-0.86	-0.44	0.52	
A6_two-piece	3.52	-0.31	-1.29		1.88	0.61	0.06	-0.65		-0.58	0.29	3.53	-0.41		1.10	-0.53	3.25	0.75	1.66	
B1_square	-0.34	-0.51	2.22	1.16		-0.79	1.61	0.84				-1.23					-0.78	0.24	1.23	
B2_keystone	-0.90	0.48	0.65		-0.36	-0.31	0.09		1.22	-1.14		-1.14	-1.15		0.90	-0.56	-0.67	-0.22	0.82	
B3_c13	0.74	-0.38	0.12		0.05	0.57	-0.16	-0.14		0.04	0.05	-0.34	-0.68	-0.95	0.01	0.42	0.47	-0.02	0.48	
B4_c13	-0.36	-0.40	-0.23		-0.51	-0.18	-0.81	-0.49		-0.44		-0.74	-1.08	-1.69	-0.04	-0.26	-0.57	-0.56	0.42	
B5-1_seq_V									-0.93									-0.93		
B5-2_seq_V									-1.04									-1.04		
B5-3_seq_V									-0.62									-0.62		
B5-4_seq_V									-0.56									-0.56		
B5-5_seq_V									-0.90									-0.90		
B5-6_seq_V									-1.11									-1.11		
B5-7_seq_V									-1.08									-1.08		
B5-8_seq_V									-1.02									-1.02		
B6_two-piece	0.63	0.18	-0.74		0.92	0.94	-0.21	-0.24		1.08	0.69	-0.78	-0.31		0.61	-0.29	1.32	0.27	0.70	
C1_square	0.15	0.02	-1.26	-0.76		0.58	-0.16	1.21				-0.81					0.28	-0.08	0.77	
C2_keystone	0.08	0.16	1.10		-0.08	-0.12	1.92		0.78	-0.62		-0.81	0.27		-0.32	-0.22	0.14	0.17	0.73	
C3_c13	0.65	-0.11	-0.38		0.45	0.73	0.32	-0.22		1.35	0.45	-0.29	-1.26	-0.59	1.02	1.07	0.78	0.25	0.74	
C4_c13	0.95	0.10	-0.35		1.89	0.90	-0.67	-0.26		0.52		0.50	-1.27	-0.79	1.44	1.93	1.29	0.44	1.02	
C5_seq_III	-0.72	0.02	0.16			-0.71	0.20			-0.34							-0.57	-0.28	0.40	
C6_two-piece	1.78	0.17	0.39		0.30	0.03	-1.75	0.87		1.32	0.11	0.36	-1.63		0.56	-0.32	0.98	0.23	0.98	
Yi MAXIMUM	3.52	1.15	2.22	1.16	1.89	1.02	1.92	1.21	1.22	1.35	0.69	3.53	-1.63	-1.69	1.44	1.93	3.25	-1.11	1.66	
Yi MINIMUM	0.08	0.02	0.12	-0.45	0.05	0.03	0.02	-0.14	-0.56	0.04	0.11	0.16	0.27	-0.42	0.01	-0.22	-0.12	-0.02	0.40	
Yi MEAN	0.15	-0.05	-0.05	-0.02	0.37	0.19	0.05	0.06	-0.56	0.01	0.36	-0.28	-0.70	-0.97	0.48	0.05	0.22			
Yi STD	1.20	0.47	0.85	1.03	0.83	0.62	0.87	0.72	0.80	0.87	0.30	1.17	0.83	0.48	0.57	0.81	1.07			

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	76.1%
-2 lt yi le -1	24	12.2%	-2 < yi ≤ 2	98.5%
-1 lt yi le 0	82	41.6%	-3 < yi ≤ 3	99.0%
0 lt yi le 1	68	34.5%	>3	1.0%
1 lt yi le 2	20	10.2%		
2 lt yi le 3	1	0.5%	Overall Yi STD	0.88
3 lt yi	2	1.0%		
total	197	100.0%	Parts Rated	27

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

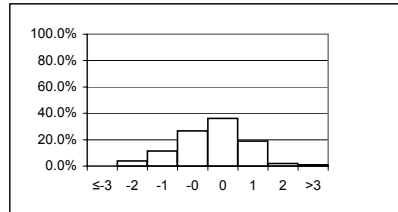
Rater = Narasaki, Keith

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	0.55	-0.59	1.33			0.30	0.67					0.29					0.21	0.39	0.58
calibration_piston_2	1.32	-0.64	0.89			1.00	1.05					0.41					1.11	0.73	0.67
A1_square	0.32	0.05	-1.14	-0.65		-0.58	-1.13	-0.98				-0.92					-0.10	-0.57	0.54
A2_keystone	0.00	-0.98	-0.99		0.24	0.34	1.02		-1.19	-0.23		1.61	-0.40		-0.23	-0.46	-0.01	-0.10	0.79
A3_c13	0.71	1.69	0.10		1.93	2.22	3.01	1.24		-1.27	1.93	0.86	1.74	1.36	0.15	-0.60	1.98	1.08	1.17
A4_c13	0.50	0.80	0.60		0.18	1.49	0.59	0.66		-1.04		0.17	1.17	1.71	0.45	0.74	0.90	0.64	0.65
A5_seq_III	-1.66	-0.83	1.41			0.75	0.73			-0.58							-1.41	-0.23	1.19
A6_two-piece	-0.38	1.69	0.37		-0.59	0.93	-0.52	0.90		-1.51	-1.32	0.06	-0.11		-0.05	2.04	-0.70	0.06	1.04
B1_square	-0.23	-1.34	-1.41	-0.88		1.09	-2.01	-2.11				-0.38					0.56	-0.75	1.10
B2_keystone																			
B3_c13																			
B4_c13	0.11	0.36	-2.28		-0.09	0.16	1.19	-2.14		0.49		-0.05	0.82	1.71	-0.23	3.61	0.18	0.27	1.45
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece	0.38	0.79	-0.79		0.04	1.17	-1.16	-0.13		-1.19	-1.00	1.07	2.46		0.70	-0.21	-0.12	0.14	1.04
C1_square																			
C2_keystone																			
C3_c13																			
C4_c13																			
C5_seq_III																			
C6_two-piece																			
Yi MAXIMUM	-1.66	1.69	-2.28	-0.88	1.93	2.22	3.01	-2.14	-1.19	-1.51	-1.32	1.61	2.46	1.71	0.70	3.61	1.98	1.08	1.45
Yi MINIMUM	0.00	0.05	0.10	-0.65	0.04	0.16	-0.52	-0.13	-1.19	-0.23	-1.00	-0.05	-0.11	1.36	-0.05	-0.21	-0.01	0.06	0.54
Yi MEAN	0.15	0.09	-0.17	-0.76	0.29	0.81	0.31	-0.36	-1.19	-0.76	-1.16	0.31	0.95	1.59	0.13	0.85	0.24		
Yi STD	0.76	1.06	1.22	0.16	0.86	0.74	1.41	1.41		0.70	0.23	0.73	1.09	0.20	0.38	1.67	0.91		

yi le	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	4	3.8%	-1 < yi ≤ 1	62.9%
-2 lt yi le -1	12	11.4%	-2 < yi ≤ 2	93.3%
-1 lt yi le 0	28	26.7%	-3 < yi ≤ 3	99.0%
0 lt yi le 1	38	36.2%	>3	1.0%
1 lt yi le 2	20	19.0%		
2 lt yi le 3	2	1.9%	Overall Yi STD	1.07
3 lt yi	1	1.0%		
total	105	100.0%	Parts Rated	11

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

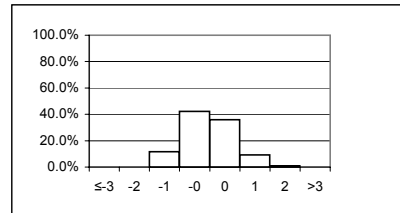
Rater = Pansza, Mike

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	0.78	-0.92	-1.07			-1.16	-0.02					0.84					-0.33	-0.27	0.84
calibration_piston_2	0.95	-0.60	-0.16			-0.56	1.10					0.49					0.47	0.24	0.69
A1_square	0.75	-0.88	-0.80	-0.65		-0.24	-0.37	-0.21				-0.03					0.47	-0.22	0.55
A2_keystone	-0.39	0.29	-0.07		0.54	-1.34	0.27		0.27	0.31		-0.35	-1.15		-0.23	-0.46	-0.52	-0.22	0.57
A3_c13	-0.75	0.18	0.04		0.24	-0.52	0.12	1.20		-0.45	0.24	-0.65	2.54	0.21	0.15	-1.02	-0.65	0.04	0.92
A4_c13	1.24	0.24	0.20		0.05	-0.86	0.18	0.66		-0.52		-1.11	0.37	-0.11	-0.18	-1.10	0.43	-0.04	0.67
A5_seq_III	0.97	-0.21	-0.80			-0.64	0.13			-0.24							0.49	-0.04	0.62
A6_two-piece	-0.38	-0.18	0.60		-0.79	0.56	1.07	1.33		-0.74	-1.14	-0.39	-0.41		-0.74	-0.53	-0.68	-0.17	0.76
B1_square	1.29	0.21	-0.71	-0.26		-0.66	1.58	0.06				-0.17					-0.13	0.13	0.80
B2_keystone	0.39	-1.53	-0.46		-0.97	-0.13	-0.60		-0.15	0.41		0.23	-0.04		0.90	-0.56	-0.59	-0.24	0.65
B3_c13	-1.38	-1.26	0.26		-1.37	-0.44	0.86	1.33		-0.53		-1.27	0.12	0.13	0.90	-1.70	-1.16	-0.49	0.93
B4_c13	-1.54	-1.09	0.49		-1.05	-0.93	-0.70	0.74		-0.58		-0.56	0.53	-0.14	0.73	-0.26	-1.62	-0.43	0.80
B5-1_seq_V									1.18									1.18	
B5-2_seq_V									1.07									1.07	
B5-3_seq_V									0.62									0.62	
B5-4_seq_V									0.93									0.93	
B5-5_seq_V									0.48									0.48	
B5-6_seq_V									0.80									0.80	
B5-7_seq_V									0.56									0.56	
B5-8_seq_V									0.63									0.63	
B6_two-piece	-0.73	-1.00	1.46		0.06	-1.39	0.73	1.62		-0.88	0.69	-0.22	-0.31		0.10	-1.11	-0.32	-0.09	0.93
C1_square	-0.50	-0.83	1.17	1.50		-1.79	1.10	1.28				-0.81					-0.90	0.03	1.23
C2_keystone	0.08	-0.87	0.12		-1.33	0.18	-0.43		-1.11	0.20		0.21	-1.50		-0.32	-0.22	-0.62	-0.43	0.61
C3_c13	-0.28	-0.62	0.82		-0.20	-0.80	0.69	0.74		-0.10		-0.44	0.12	1.06	-0.53	-1.05	-0.39	-0.07	0.66
C4_c13	-1.93	-1.52	0.80		-0.25	-0.31	0.62	0.54		0.23		-0.82	0.79	0.59	-0.20	-1.19	-1.29	-0.28	0.93
C5_seq_III	0.38	-0.30	-0.69			-1.08	0.37			0.02							0.07	-0.18	0.55
C6_two-piece	-0.26	0.34	2.11		-0.63	-0.55	0.39	-1.19		-0.58	0.94	-0.10	1.15		-0.45	-0.32	-0.09	0.05	0.86
Yi MAXIMUM	-1.93	-1.53	2.11	1.50	-1.37	-1.79	1.58	1.62	1.18	-0.88	-1.14	-1.27	2.54	1.06	0.90	-1.70	-1.62	1.18	1.23
Yi MINIMUM	0.08	-0.18	0.04	-0.26	0.05	-0.13	-0.02	0.06	-0.15	0.02	0.69	-0.03	-0.04	-0.11	0.10	-0.22	0.07	0.03	0.55
Yi MEAN	-0.07	-0.56	0.17	0.20	-0.48	-0.67	0.37	0.68	0.48	-0.25	0.16	-0.30	0.18	0.29	-0.10	-0.79	-0.39		
Yi STD	0.95	0.62	0.85	1.15	0.64	0.56	0.63	0.80	0.64	0.42	1.13	0.55	1.06	0.46	0.50	0.46	0.61		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	78.2%
-2 lt yi le -1	23	11.7%	-2 < yi ≤ 2	99.0%
-1 lt yi le 0	83	42.1%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	71	36.0%	>3	0.0%
1 lt yi le 2	18	9.1%		
2 lt yi le 3	2	1.0%	Overall Yi STD	0.80
3 lt yi	0	0.0%		
total	197	100.0%	Parts Rated	27

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

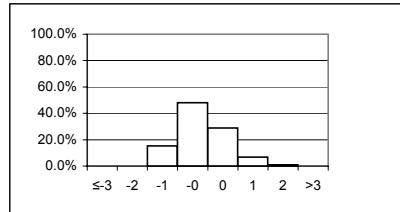
Rater = Radonich, Pete

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	-1.20	0.58	-1.15			0.08	-0.24					-1.08					-0.42	-0.49	0.69
calibration_piston_2	-0.40	-0.55	-0.97			-0.21	-0.42					0.54					-0.81	-0.40	0.49
A1_square																			
A2_keystone																			
A3_c13																			
A4_c13																			
A5_seq_III																			
A6_two-piece																			
B1_square	-0.34	-0.56	-0.71	-0.57		-0.69	-1.17	-0.31				-0.17					-0.78	-0.59	0.30
B2_keystone	0.46	0.48	-0.55		0.00	-0.60	-0.22		-0.29	0.54		0.23	-0.80		-0.72	-0.56	-0.38	-0.19	0.48
B3_c13	-0.31	1.13	-0.90		-0.41	-0.04	-1.51	-1.57		-0.49		-1.12	0.92	-0.27	-0.95	-0.29	-0.42	-0.44	0.78
B4_c13																			
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece																			
C1_square	-0.29	1.47	-1.31	-0.97		-0.05	-0.58	-1.39				-0.81					0.01	-0.44	0.87
C2_keystone	0.29	0.16	-0.37		-0.93	0.54	1.22		0.14	-0.41		0.08	0.23		-0.32	-0.22	0.25	0.05	0.53
C3_c13	0.71	0.76	-1.00		0.51	1.64	-1.52	-1.45		-0.35	0.51	-0.29	0.12	2.15	0.24	0.01	0.77	0.16	1.06
C4_c13	-0.37	1.56	-0.98		-0.32	-0.84	-1.80	-1.09		-0.48		-0.96	0.79	1.58	0.13	-0.41	-0.68	-0.28	0.98
C5_seq_III	0.46	-0.19	-0.26			0.61	0.54			0.04							0.35	0.22	0.36
C6_two-piece	0.88	-0.64	-1.40		0.06	-0.30	0.11	-1.29		-0.26	-1.07	1.27	0.22		-0.45	-0.32	-0.19	-0.24	0.75
Yi MAXIMUM	-1.20	1.56	-1.40	-0.97	-0.93	1.64	-1.80	-1.57	-0.29	0.54	-1.07	1.27	0.92	2.15	-0.95	-0.56	-0.81	-0.59	1.06
Yi MINIMUM	-0.29	0.16	-0.26	-0.57	0.00	-0.04	0.11	-0.31	0.14	0.04	-1.07	0.08	0.12	-0.27	0.13	0.01	0.01	0.05	0.30
Yi MEAN	-0.01	0.38	-0.87	-0.77	-0.18	0.01	-0.51	-1.18	-0.07	-0.20	-1.07	-0.23	0.24	1.15	-0.35	-0.30	-0.21		
Yi STD	0.62	0.80	0.36	0.28	0.49	0.71	0.94	0.46	0.31	0.37		0.78	0.61	1.27	0.47	0.19	0.51		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	76.9%
-2 lt yi le -1	16	15.4%	-2 < yi ≤ 2	99.0%
-1 lt yi le 0	50	48.1%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	30	28.8%	>3	0.0%
1 lt yi le 2	7	6.7%		
2 lt yi le 3	1	1.0%	Overall Yi STD	0.79
3 lt yi	0	0.0%		
total	104	100.0%	Parts Rated	11

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

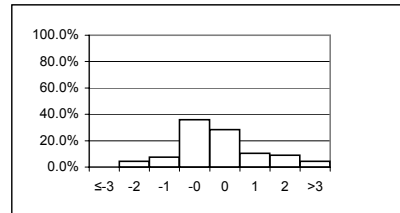
Rater = Ramirez, Manny

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	0.84	1.89	-1.59			1.77	-0.08					0.02					1.83	0.67	1.30
calibration_piston_2	-1.41	1.38	0.17			0.79	-0.21					-0.05					-0.16	0.07	0.87
A1_square																			
A2_keystone																			
A3_c13																			
A4_c13																			
A5_seq_III																			
A6_two-piece																			
B1_square	-0.23	-0.15	-0.01	-0.26		2.25	-0.50	2.96				-2.51					1.80	0.37	1.68
B2_keystone	-2.01	1.28	-1.14		0.52	0.34	3.01		-0.92	-1.45		0.77	-0.18		0.90	1.12	0.16	0.19	1.34
B3_c13	0.05	-0.86	0.86		-0.82	3.22	-0.19	0.09		3.57		-1.27	2.52	-0.27	1.94	-0.29	2.78	0.81	1.66
B4_c13	0.16	-0.89	-0.13		-0.08	2.21	2.90	0.74		-0.38		0.18	0.53	1.09	-0.42	-0.26	1.32	0.50	1.07
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece	-2.02	0.00	-0.08		1.20	-0.27	0.32	0.67		-0.81	0.07	-0.78	2.14		0.61	-0.29	0.49	0.09	0.98
C1_square																			
C2_keystone																			
C3_c13																			
C4_c13																			
C5_seq_III																			
C6_two-piece																			
Yi MAXIMUM	-2.02	1.89	-1.59	-0.26	1.20	3.22	3.01	2.96	-0.92	3.57	0.07	-2.51	2.52	1.09	1.94	1.12	2.78	0.81	1.68
Yi MINIMUM	0.05	0.00	-0.01	-0.26	-0.08	-0.27	-0.08	0.09	-0.92	-0.38	0.07	-0.02	-0.18	-0.27	-0.42	-0.26	-0.16	0.07	0.87
Yi MEAN	-0.66	0.38	-0.27	-0.26	0.20	1.47	0.75	1.11	-0.92	0.23	0.07	-0.52	1.25	0.41	0.76	0.07	1.18		
Yi STD	1.15	1.13	0.83		0.86	1.23	1.53	1.26		2.27		1.10	1.29	0.97	0.97	0.70	1.06		

yi le -3	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	3	4.5%	-1 < yi ≤ 1	64.2%
-2 lt yi le -1	5	7.5%	-2 < yi ≤ 2	82.1%
-1 lt yi le 0	24	35.8%	-3 < yi ≤ 3	95.5%
0 lt yi le 1	19	28.4%	>3	4.5%
1 lt yi le 2	7	10.4%		
2 lt yi le 3	6	9.0%	Overall Yi STD	1.32
3 lt yi	3	4.5%		
total	67	100.0%	Parts Rated	7

Yi distribution (excluding shaded columns)



Group: Yellow

October 1-5, 2006

Heavy Duty Rating Workshop

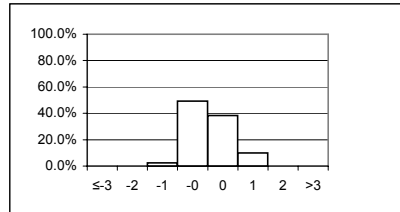
Rater = Rodriguez, Jesse

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	0.33	1.54	1.15			-0.08	-0.14					-1.35					1.10	0.37	0.99
calibration_piston_2	-1.07	-0.22	0.75			-0.25	0.33					-0.59					-0.92	-0.28	0.65
A1_square																			
A2_keystone																			
A3_c13																			
A4_c13																			
A5_seq_III																			
A6_two-piece																			
B1_square																			
B2_keystone																			
B3_c13																			
B4_c13																			
B5-1_seq_V									-0.38									-0.38	
B5-2_seq_V									-0.39									-0.39	
B5-3_seq_V									-0.09									-0.09	
B5-4_seq_V									-0.38									-0.38	
B5-5_seq_V									-0.02									-0.02	
B5-6_seq_V									-0.01									-0.01	
B5-7_seq_V									-0.04									-0.04	
B5-8_seq_V									-0.53									-0.53	
B6_two-piece																			
C1_square	1.59	-0.01	0.97	-0.62		0.43	0.68	0.19				0.85					1.05	0.57	0.65
C2_keystone	0.38	1.04	1.63		-0.28	0.79	-0.56		1.70	0.31		-0.30	0.48		-0.32	-0.22	0.98	0.43	0.76
C3_c13	-0.09	0.66	0.10		-0.10	-0.16	-0.04	0.09		-0.68		-0.75	0.12	0.23	0.24	0.01	-0.08	-0.03	0.36
C4_c13	-0.05	-0.03	-0.22		0.55	-0.33	0.64	0.65		-0.19		-0.67	-0.24	-0.59	0.78	-0.41	0.05	0.00	0.48
C5_seq_III	0.40	-0.05	-0.60			1.09	-0.15			0.12							0.36	0.17	0.53
C6_two-piece	-0.16	-0.49	0.09		-0.53	0.76	0.34	0.69		1.53	-0.18	0.36	0.22		0.56	-0.32	0.21	0.22	0.56
Yi MAXIMUM	1.59	1.54	1.63	-0.62	0.55	1.09	0.68	0.69	1.70	1.53	-0.18	-1.35	0.48	-0.59	0.78	-0.41	1.10	0.57	0.99
Yi MINIMUM	-0.05	-0.01	0.09	-0.62	-0.10	-0.08	-0.04	0.09	-0.01	0.12	-0.18	-0.30	0.12	0.23	0.24	0.01	0.05	0.00	0.36
Yi MEAN	0.17	0.31	0.48	-0.62	-0.09	0.28	0.14	0.40	-0.01	0.22	-0.18	-0.35	0.14	-0.18	0.32	-0.24	0.34		
Yi STD	0.75	0.70	0.76		0.46	0.55	0.43	0.31	0.67	0.82		0.74	0.30	0.58	0.48	0.18	0.69		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	87.7%
-2 lt yi le -1	2	2.5%	-2 < yi ≤ 2	100.0%
-1 lt yi le 0	40	49.4%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	31	38.3%	>3	0.0%
1 lt yi le 2	8	9.9%		
2 lt yi le 3	0	0.0%	Overall Yi STD	0.63
3 lt yi	0	0.0%		
total	81	100.0%	Parts Rated	16

Yi distribution (excluding shaded columns)



Group: Blue

October 1-5, 2006

Heavy Duty Rating Workshop

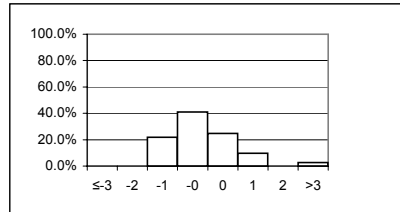
Rater = Sanchez, Art

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	1.41	0.45	-1.28			-0.91	0.00					-1.08					0.89	-0.07	1.04
calibration_piston_2	-0.11	-0.01	-0.82			-0.89	-0.54					0.06					-0.42	-0.39	0.38
A1_square	1.18	-0.92	-0.20	0.04		-0.47	-0.37	-0.21				1.09					0.81	0.11	0.74
A2_keystone	-0.07	0.21	-1.14		-0.98	0.08	-0.48		-0.99	-0.63		1.75	0.97		-0.23	0.88	-0.42	-0.08	0.86
A3_c13	1.61	-1.90	-1.16		-1.72	-1.81	-1.22	-1.19		-0.44		0.05	-0.45	-1.37	-0.32	-0.18	-0.54	-0.76	0.93
A4_c13	1.24	-0.49	-1.49		0.04	0.17	-0.84	-1.68		0.44		-0.90	-0.76	0.19	0.33	-0.78	0.39	-0.30	0.82
A5_seq_III	0.25	3.00	-0.48			3.25	0.58			-0.26							1.98	1.19	1.54
A6_two-piece	0.15	-1.38	-1.97		-0.26	-0.71	-1.94	-1.53		0.04	1.04	-0.09	-0.41		0.64	0.94	-0.10	-0.40	0.99
B1_square																			
B2_keystone																			
B3_c13																			
B4_c13																			
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece																			
C1_square																			
C2_keystone																			
C3_c13																			
C4_c13																			
C5_seq_III																			
C6_two-piece																			
Yi MAXIMUM	1.61	3.00	-1.97	0.04	-1.72	3.25	-1.94	-1.68	-0.99	-0.63	1.04	1.75	0.97	-1.37	0.64	0.94	1.98	1.19	1.54
Yi MINIMUM	-0.07	-0.01	-0.20	0.04	0.04	0.08	0.00	-0.21	-0.99	0.04	1.04	0.05	-0.41	0.19	-0.23	-0.18	-0.10	-0.07	0.38
Yi MEAN	0.71	-0.13	-1.07	0.04	-0.73	-0.16	-0.60	-1.15	-0.99	-0.17	1.04	0.13	-0.16	-0.59	0.10	0.21	0.32		
Yi STD	0.72	1.50	0.56		0.78	1.51	0.76	0.66		0.42		1.01	0.77	1.10	0.46	0.84	0.87		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	65.8%
-2 lt yi le -1	16	21.9%	-2 < yi ≤ 2	97.3%
-1 lt yi le 0	30	41.1%	-3 < yi ≤ 3	97.3%
0 lt yi le 1	18	24.7%	>3	2.7%
1 lt yi le 2	7	9.6%		
2 lt yi le 3	0	0.0%	Overall Yi STD	1.04
3 lt yi	2	2.7%		
total	73	100.0%	Parts Rated	8

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

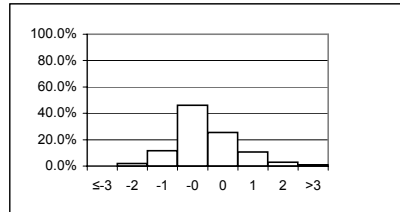
Rater = Shoda, Ron

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	-2.47	-0.03	-0.76			0.36	-0.05					0.02					-1.43	-0.62	1.01
calibration_piston_2	-1.44	0.54	-0.35			0.14	1.18					0.76					-0.57	0.04	0.89
A1_square																			
A2_keystone																			
A3_c13																			
A4_c13																			
A5_seq_III																			
A6_two-piece																			
B1_square	1.14	-0.24	1.38	-0.57		-0.68	-0.22	0.53				1.11					-0.26	0.24	0.80
B2_keystone	0.78	-0.72	-1.03		-0.13	-0.90	-0.39		-1.06	-0.67		0.23	3.07		-0.72	-0.56	-0.96	-0.24	1.13
B3_c13	0.87	1.53	-0.82		-1.34	0.40	-0.81	-1.57		-0.28		1.04	0.12	-0.95		1.12	0.24	-0.06	0.98
B4_c13	0.15	2.41	-0.44		-0.50	-0.68	-0.99	-1.60		-0.78		0.00	0.13	-0.45	-0.42	-0.26	-0.24	-0.26	0.90
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece	0.63	1.32	-0.48		-0.88	0.40	-1.25	-0.52		0.19	0.07	-0.41	-0.31		-0.66	0.53	-0.40	-0.13	0.68
C1_square																			
C2_keystone	0.25	-0.28	-1.19		-0.48	0.53	-0.36		-0.75	0.20		-0.30	-0.16		-0.32	-0.22	-0.07	-0.24	0.44
C3_c13																			
C4_c13	-1.07	2.16	-1.70		1.37	0.14	-1.95	-1.56		0.38		-2.13	-0.24	-0.59	1.77	1.15	-0.14	-0.17	1.41
C5_seq_III																			
C6_two-piece	-0.15	-0.16	0.05		0.46	-0.21	1.68	0.73		0.06	-0.18	1.27	2.07		-0.45	-0.32	0.04	0.35	0.80
Yi MAXIMUM	-2.47	2.41	-1.70	-0.57	1.37	-0.90	-1.95	-1.60	-1.06	-0.78	-0.18	-2.13	3.07	-0.95	1.77	1.15	-1.43	-0.62	1.41
Yi MINIMUM	-0.15	-0.03	0.05	-0.57	-0.13	0.14	-0.05	-0.52	-0.75	0.06	0.07	0.00	0.12	-0.45	-0.32	-0.22	0.04	0.04	0.44
Yi MEAN	-0.13	0.65	-0.53	-0.57	-0.21	-0.05	-0.32	-0.67	-0.91	-0.13	-0.06	0.16	0.67	-0.66	-0.18	0.20	-0.38		
Yi STD	1.17	1.12	0.83		0.90	0.53	1.08	1.08	0.22	0.45	0.17	1.01	1.34	0.26	0.87	0.72	0.50		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	2	2.0%	-1 < yi ≤ 1	71.6%
-2 lt yi le -1	12	11.8%	-2 < yi ≤ 2	94.1%
-1 lt yi le 0	47	46.1%	-3 < yi ≤ 3	99.0%
0 lt yi le 1	26	25.5%	>3	1.0%
1 lt yi le 2	11	10.8%		
2 lt yi le 3	3	2.9%	Overall Yi STD	0.98
3 lt yi	1	1.0%		
total	102	100.0%	Parts Rated	10

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

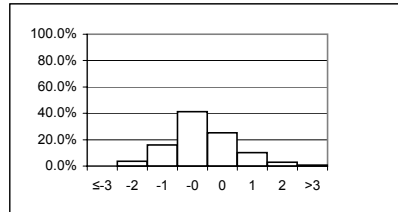
Rater = Tschirhart, Garland

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	-0.62	-0.62	-1.90			1.87	-0.36					-0.53					-0.56	-0.39	1.12
calibration_piston_2	0.73	-0.23	-1.04			-0.65	0.05					-0.11					0.25	-0.14	0.58
A1_square	-0.25	-0.74	0.21	0.04		-0.52	-0.37	-0.60				1.09					-0.59	-0.19	0.57
A2_keystone	-1.15	-1.36	-1.72		-0.77	1.12	-0.30		0.27	0.65		-0.63	-1.76		-0.23	-0.46	-0.50	-0.53	0.86
A3_c13	-1.26	-0.92	-0.82		0.72	0.03	-0.77	-1.42		1.46		-2.85	-0.45	-0.32	2.93	-2.69	-0.69	-0.50	1.51
A4_c13	-0.61	-0.55	-0.72		1.23	-0.10	-0.71	-0.72		1.59		-2.40	-0.76	0.49	2.11	-1.58	0.08	-0.19	1.22
A5_seq_III	-0.85	-0.54	1.20			0.00	-2.26			3.11							-0.38	0.04	1.70
A6_two-piece	-0.37	-2.05	0.94		1.92	-1.52	-1.00	-1.25		0.04	-0.18	-0.59	-0.41		1.86	-0.53	0.11	-0.22	1.16
B1_square	0.82	-0.14	-0.71	-0.57		0.70	-0.82	-0.62				-0.38					0.77	-0.11	0.68
B2_keystone																			
B3_c13																			
B4_c13																			
B5-1_seq_V									0.68									0.68	
B5-2_seq_V									0.69									0.69	
B5-3_seq_V									0.44									0.44	
B5-4_seq_V									0.79									0.79	
B5-5_seq_V									0.52									0.52	
B5-6_seq_V									0.64									0.64	
B5-7_seq_V									0.61									0.61	
B5-8_seq_V									0.02									0.02	
B6_two-piece	0.75	-0.92	0.04		0.27	0.04	-0.42	-0.92		-1.14	0.95	0.34	-1.12		0.78	-0.70	0.05	-0.14	0.73
C1_square	-1.07	-1.71	-1.31	-0.62		0.31	-1.21	-0.22				-0.81					-1.14	-0.86	0.61
C2_keystone	0.08	-1.75	-1.19		-0.60	1.84	-1.26		-0.29	2.48		-0.55	-2.32		-0.32	-0.22	-0.80	-0.38	1.31
C3_c13	1.15	-0.08	-1.20		0.92	-0.26	-1.43	-0.90		-0.68		1.58	-0.57	-0.31	2.56	-2.47	0.54	-0.08	1.33
C4_c13																			
C5_seq_III	1.73	-0.37	0.16			1.13	0.45			0.36							1.23	0.67	0.72
C6_two-piece																			
Yi MAXIMUM	1.73	-2.05	-1.90	-0.62	1.92	1.87	-2.26	-1.42	0.79	3.11	0.95	-2.85	-2.32	0.49	2.93	-2.69	1.23	-0.86	1.70
Yi MINIMUM	0.08	-0.08	0.04	0.04	0.27	0.00	0.05	-0.22	0.02	0.04	-0.18	-0.11	-0.41	-0.31	-0.23	-0.22	0.05	0.02	0.57
Yi MEAN	-0.07	-0.86	-0.58	-0.38	0.53	0.29	-0.74	-0.83	0.44	0.88	0.38	-0.49	-1.05	-0.05	1.39	-1.24	-0.11		
Yi STD	0.95	0.64	0.95	0.36	0.97	0.96	0.68	0.38	0.34	1.41	0.80	1.24	0.73	0.47	1.32	1.01	0.67		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	5	3.6%	-1 < yi ≤ 1	66.7%
-2 lt yi le -1	22	15.9%	-2 < yi ≤ 2	92.8%
-1 lt yi le 0	57	41.3%	-3 < yi ≤ 3	99.3%
0 lt yi le 1	35	25.4%	>3	0.7%
1 lt yi le 2	14	10.1%		
2 lt yi le 3	4	2.9%	Overall Yi STD	1.09
3 lt yi	1	0.7%		
total	138	100.0%	Parts Rated	22

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop

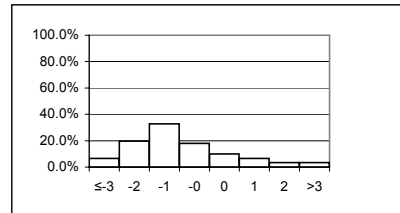
Rater = Vela, Paul

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	1.29	2.19	-1.72			0.79	4.72					1.38					3.16	1.69	2.01
calibration_piston_2	0.37	-0.99	0.34			-2.25	-2.60					0.76					-1.25	-0.80	1.34
A1_square																			
A2_keystone																			
A3_c13																			
A4_c13																			
A5_seq_III																			
A6_two-piece																			
B1_square																			
B2_keystone																			
B3_c13																			
B4_c13																			
B5-1_seq_V																			
B5-2_seq_V																			
B5-3_seq_V																			
B5-4_seq_V																			
B5-5_seq_V																			
B5-6_seq_V																			
B5-7_seq_V																			
B5-8_seq_V																			
B6_two-piece																			
C1_square	-0.81	-1.62	1.07	1.69		-0.47	-0.37	-0.76				-0.39					-1.03	-0.30	1.04
C2_keystone	-3.93	-2.96	-1.06		-1.89	-2.31	-1.48		0.53	-2.51		-1.12	-2.64		2.92	4.25	-3.70	-1.22	2.45
C3_c13	-1.85	-3.11	-0.92		-3.67	-3.11	-1.08	-0.22		-1.01		-2.63	-1.12	-1.96	0.24	-0.70	-3.47	-1.76	1.26
C4_c13																			
C5_seq_III	-1.52	-1.66	-0.35			-1.74	-2.44			-1.67							-1.97	-1.62	0.64
C6_two-piece	-2.76	-2.60	-1.86		-1.95	-2.32	-2.44	-1.23		-1.38	-1.86	-0.10	-0.48		3.62	3.56	-3.35	-1.08	2.16
Yi MAXIMUM	-3.93	-3.11	-1.86	1.69	-3.67	-3.11	4.72	-1.23	0.53	-2.51	-1.86	-2.63	-2.64	-1.96	3.62	4.25	-3.70	-1.76	2.45
Yi MINIMUM	0.37	-0.99	0.34	1.69	-1.89	-0.47	-0.37	-0.22	0.53	-1.01	-1.86	-0.10	-0.48	-1.96	0.24	-0.70	-1.03	-0.30	0.64
Yi MEAN	-1.32	-1.54	-0.64	1.69	-2.50	-1.63	-0.81	-0.74	0.53	-1.64	-1.86	-0.35	-1.41	-1.96	2.26	2.37	-1.66		
Yi STD	1.79	1.82	1.07		1.01	1.34	2.57	0.51		0.64		1.42	1.11		1.78	2.68	2.39		

yi le	count	percent		
yi le -3	4	6.6%		
-3 lt yi le -2	12	19.7%	-1 < yi ≤ 1	27.9%
-2 lt yi le -1	20	32.8%	-2 < yi ≤ 2	67.2%
-1 lt yi le 0	11	18.0%	-3 < yi ≤ 3	90.2%
0 lt yi le 1	6	9.8%	>3	9.8%
1 lt yi le 2	4	6.6%		
2 lt yi le 3	2	3.3%	Overall Yi STD	1.73
3 lt yi	2	3.3%		
total	61	100.0%	Parts Rated	7

Yi distribution (excluding shaded columns)



Group: Yellow

October 1-5, 2006

Heavy Duty Rating Workshop

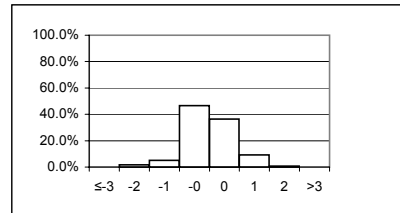
Rater = Viera, Ralph

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD	
calibration_piston_1	-0.64	-0.21	0.63			0.41	-0.30					0.84					-0.47	0.04	0.58	
calibration_piston_2	-0.34	-0.01	-0.51			-0.08	-1.38					-0.38						-0.57	-0.36	0.56
A1_square	-1.32	0.01	0.07	-0.65		-0.34	1.16	0.93				-2.71					-1.34	-0.47	1.21	
A2_keystone	0.32	-2.24	-0.38		0.12	-0.64	-0.14		0.32	-0.81		0.63	0.36		-0.23	-0.46	-1.20	-0.33	0.78	
A3_c13	-1.16	0.32	0.31		0.13	-0.65	0.08	-0.01		1.46		-0.18	-0.45	-0.84	-0.32	0.65	-0.67	-0.09	0.67	
A4_c13																				
A5_seq_III	-0.30	-0.54	-1.22			-0.23	0.61			-0.06							-0.48	-0.32	0.55	
A6_two-piece																				
B1_square	-0.96	1.04	0.76	0.38		-0.55	-0.64	-0.22				-1.66					-0.57	-0.27	0.86	
B2_keystone	1.54	-1.53	-0.86		-0.95	-0.69	-0.56		-0.21	0.57		2.95	-0.39		-0.72	-0.56	-0.69	-0.16	1.20	
B3_c13	0.53	0.22	0.40		0.19	-0.68	1.61	1.23		0.36	0.19	0.12	0.12	0.00	-0.47	-0.29	0.25	0.26	0.60	
B4_c13	0.46	-0.51	1.27		-0.46	-0.31	0.13	0.26		0.29		0.18	-0.27	-0.35	-0.42	-0.26	-0.01	0.00	0.48	
B5-1_seq_V									-0.96									-0.96		
B5-2_seq_V									-0.55									-0.55		
B5-3_seq_V									0.14									0.14		
B5-4_seq_V									-0.96									-0.96		
B5-5_seq_V									-0.30									-0.30		
B5-6_seq_V									-0.01									-0.01		
B5-7_seq_V									1.03									1.03		
B5-8_seq_V									0.28									0.28		
B6_two-piece	0.78	0.63	0.11		-0.47	0.67	1.23	1.06		1.36	-1.00	0.71	0.51		-0.32	2.16	0.18	0.54	0.81	
C1_square																				
C2_keystone																				
C3_c13																				
C4_c13																				
C5_seq_III	-0.45	-0.21	-0.43			0.17	0.34			0.03							-0.32	-0.12	0.31	
C6_two-piece																				
Yi MAXIMUM	1.54	-2.24	1.27	-0.65	-0.95	-0.69	1.61	1.23	1.03	1.46	-1.00	2.95	0.51	-0.84	-0.72	2.16	-1.34	1.03	1.21	
Yi MINIMUM	-0.30	-0.01	0.07	0.38	0.12	-0.08	0.08	-0.01	-0.01	0.03	-1.00	0.12	0.12	0.00	-0.23	-0.26	-0.01	0.00	0.31	
Yi MEAN	-0.13	-0.25	0.01	-0.14	-0.24	-0.24	0.18	0.54	-0.12	0.40	-1.00	0.13	-0.02	-0.40	-0.41	0.21	-0.49			
Yi STD	0.86	0.90	0.72	0.73	0.46	0.45	0.87	0.61	0.61	0.75		1.51	0.41	0.42	0.17	1.05	0.48			

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	2	1.7%	-1 < yi ≤ 1	83.1%
-2 lt yi le -1	6	5.1%	-2 < yi ≤ 2	97.5%
-1 lt yi le 0	55	46.6%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	43	36.4%	>3	0.0%
1 lt yi le 2	11	9.3%		
2 lt yi le 3	1	0.8%	Overall Yi STD	0.79
3 lt yi	0	0.0%		
total	118	100.0%	Parts Rated	20

Yi distribution (excluding shaded columns)



Group: Red

October 1-5, 2006

Heavy Duty Rating Workshop

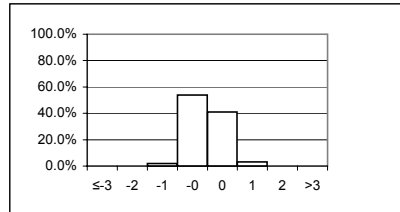
Rater = Yanchar, Paul

Yi VALUES

	Groove 1	Groove 2	Groove 3	Groove 4	Land 1	Land 2	Land 3	Land 4	Skirt	Under-crown	Oil Gallery	TGF%	2nd GF%	AGF%	TLHC%	TLFC%	UWPD	MEAN	STD
calibration_piston_1	0.03	-0.38	-0.23			0.50	-0.22					0.02					-0.18	-0.07	0.29
calibration_piston_2	0.22	-0.33	-0.82			0.30	-0.06					0.76					0.00	0.01	0.50
A1_square	-0.33	-0.21	-0.60	-0.31		0.24	-0.37	-0.21				-0.03					-0.29	-0.24	0.23
A2_keystone	-0.39	0.76	0.29		-0.29	-0.50	0.07		0.62	0.59		-0.91	0.63		-0.23	-0.46	-0.19	0.00	0.53
A3_c13	-0.70	0.76	-1.15		-0.35	-0.06	-0.19	-0.54		0.64	-0.35	-0.18	-0.45	0.47	-0.78	-0.18	-0.44	-0.22	0.54
A4_c13	-0.15	0.90	-0.85		0.00	-0.65	-0.18	-1.10		1.29		0.39	-0.76	0.19	-0.69	0.34	0.03	-0.09	0.69
A5_seq_III	-0.30	-0.65	-0.32			-0.45	0.40			-0.25							-0.58	-0.31	0.34
A6_two-piece	-0.44	-0.56	-1.51		-0.39	-0.01	-0.32	-0.53		0.35	0.50	-0.49	-0.41		-0.59	-0.53	-0.46	-0.39	0.47
B1_square	-1.36	0.01	-0.71	-0.57		-0.35	-0.34	-0.53				-0.17					-0.71	-0.53	0.39
B2_keystone	0.58	0.08	0.02		0.72	-0.17	-0.01		-0.38	-0.29		-0.32	0.86		0.90	-0.56	0.22	0.13	0.49
B3_c13	-0.34	0.97	0.75		0.86	-0.16	0.37	-0.24		0.33		-0.19	-0.68	-0.14	-0.47	-1.00	0.28	0.03	0.59
B4_c13	-0.47	0.29	-0.26		0.75	-0.44	-0.40	-0.25		-0.78		-0.74	-0.68	0.16	0.34	-0.26	-0.45	-0.23	0.45
B5-1_seq_V									0.97										0.97
B5-2_seq_V									0.80										0.80
B5-3_seq_V									1.12										1.12
B5-4_seq_V									1.14										1.14
B5-5_seq_V									0.43										0.43
B5-6_seq_V									0.50										0.50
B5-7_seq_V									0.48										0.48
B5-8_seq_V									0.22										0.22
B6_two-piece	0.01	0.86	-0.25		-0.82	0.33	0.97	0.37		0.45	0.33	-0.97	-0.31		-0.49	-0.70	-0.30	-0.04	0.61
C1_square	0.19	0.62	-0.82	0.09		0.78	-0.41	-0.56				0.85					0.47	0.14	0.61
C2_keystone	0.16	0.21	0.12		0.82	-0.17	-0.48		-0.09	0.62		-0.43	0.31		-0.32	-0.22	0.20	0.06	0.39
C3_c13	0.09	1.08	-0.82		0.52	0.23	0.19	0.06		1.88		-0.29	0.12	0.23	-0.53	-1.05	0.64	0.17	0.75
C4_c13	0.05	0.79	-0.52		-0.35	-0.43	0.58	-0.14		0.23		-0.96	-0.24	0.39	-0.86	-0.41	-0.05	-0.14	0.51
C5_seq_III	-0.71	-0.20	-0.35			-0.05	0.78			0.04							-0.50	-0.14	0.48
C6_two-piece	-0.04	0.38	-0.57		0.54	0.61	0.44	-0.41		1.23	-0.55	-0.56	0.22		-0.45	-0.32	0.35	0.06	0.56
Yi MAXIMUM	-1.36	1.08	-1.51	-0.57	0.86	0.78	0.97	-1.10	1.14	1.88	-0.55	-0.97	0.86	0.47	0.90	-1.05	-0.71	1.14	0.75
Yi MINIMUM	0.01	0.01	0.02	0.09	0.00	-0.01	-0.01	0.06	-0.09	0.04	0.33	0.02	0.12	-0.14	-0.23	-0.18	0.00	0.00	0.23
Yi MEAN	-0.21	0.28	-0.45	-0.26	0.17	-0.02	0.04	-0.34	0.53	0.45	0.09	-0.25	-0.12	0.22	-0.35	-0.45	-0.10		
Yi STD	0.44	0.56	0.53	0.33	0.59	0.41	0.44	0.37	0.48	0.69	0.56	0.54	0.54	0.21	0.50	0.38	0.39		

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	94.9%
-2 lt yi le -1	4	2.0%	-2 < yi ≤ 2	100.0%
-1 lt yi le 0	106	53.8%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	81	41.1%	>3	0.0%
1 lt yi le 2	6	3.0%		
2 lt yi le 3	0	0.0%	Overall Yi STD	0.57
3 lt yi	0	0.0%		
total	197	100.0%	Parts Rated	27

Yi distribution (excluding shaded columns)



Group: Blue

Heavy Duty Rating Workshop

	Number of Parts Rated	-1 < yi ≤ 1	-2 < yi ≤ 2	-3 < yi ≤ 3	>3	Yi STD	Group	
Avis, Steve	10	83.5%	94.8%	99.0%	1.0%	0.88	White	
Barrera, Tony	21	87.0%	99.2%	99.2%	0.8%	0.72	Blue	
Beckman, Alan	17	42.6%	79.8%	94.7%	5.3%	1.57	Yellow	
Borland, Rob	9	54.1%	87.1%	96.5%	3.5%	1.17	Yellow	
Campbell, Andy	9	78.8%	95.3%	100.0%	0.0%	0.80	White	
Castillo, George	11	78.6%	98.1%	100.0%	0.0%	0.80	White	
Clapperty, Leon	15	62.7%	92.0%	98.7%	1.3%	1.09	White	
Cole, Steve	11	66.3%	93.3%	99.0%	1.0%	1.04	White	
Edson, Carter	9	76.2%	96.4%	100.0%	0.0%	0.89	White	
Engelskirchen, Jim	8	71.2%	95.9%	100.0%	0.0%	0.88	White	
Foecking, Brian	11	89.4%	100.0%	100.0%	0.0%	0.59	Blue	
Greenland, Paul	9	85.2%	100.0%	100.0%	0.0%	0.71	Blue	
Hill, Howard	21	73.0%	93.4%	99.3%	0.7%	1.02	White	
Holland, Steve	11	85.3%	100.0%	100.0%	0.0%	0.65	Blue	
Klapka, Al	7	43.7%	70.4%	94.4%	5.6%	1.43	Yellow	
Kobrinetz, Jack	18	92.4%	99.0%	100.0%	0.0%	0.61	Blue	
Langford, Mike	11	73.1%	99.0%	100.0%	0.0%	0.83	White	
Lenzing, Heinz	12	75.9%	98.3%	100.0%	0.0%	0.84	White	
Lopez, Frank	16	75.9%	98.9%	100.0%	0.0%	0.84	White	
Lowsky, John	19	62.7%	90.7%	95.8%	4.2%	1.23	Yellow	
May, Marianne	26	88.0%	96.3%	100.0%	0.0%	0.78	Red	
Mundt, Matthias	27	76.1%	98.5%	99.0%	1.0%	0.88	White	
Narasaki, Keith	11	62.9%	93.3%	99.0%	1.0%	1.07	White	
Pansza, Mike	27	78.2%	99.0%	100.0%	0.0%	0.80	White	
Radonich, Pete	11	76.9%	99.0%	100.0%	0.0%	0.79	White	
Ramirez, Manny	7	64.2%	82.1%	95.5%	4.5%	1.32	Yellow	
Rodriguez, Jesse	16	87.7%	100.0%	100.0%	0.0%	0.63	Blue	
Sanchez, Art	8	65.8%	97.3%	97.3%	2.7%	1.04	White	
Shoda, Ron	10	71.6%	94.1%	99.0%	1.0%	0.98	White	
Tschirhart, Garland	22	66.7%	92.8%	99.3%	0.7%	1.09	White	
Vela, Paul	7	27.9%	67.2%	90.2%	9.8%	1.73	Yellow	
Viera, Ralph	20	83.1%	97.5%	100.0%	0.0%	0.79	Red	
Yanchar, Paul	27	94.9%	100.0%	100.0%	0.0%	0.57	Blue	

	Minimum Number of Parts Rated	Minimum Yi's within 1 STD of mean	Minimum Yi's within 2 STD of mean	Maximum Overall Yi STD	Group Total	
White	0	60%	90%	1.20	18	55%
Red	0	80%	95%	0.85	2	6%
Blue	0	85%	98%	0.75	7	21%
Yellow	-	-	-	-	6	18%

October 1-5, 2006

Heavy Duty Rating Workshop (C13 Rings)

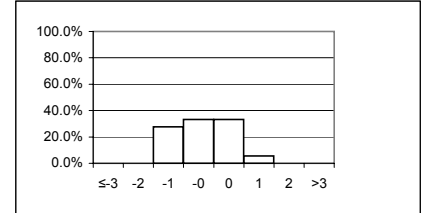
Rater = Avis, Steve

YI VALUES

	Ring 1	Ring 2	Ring 3	Ring 4	Ring 5	Ring 6													MEAN	STD
calibration_c13_ring_s	-1.15	-0.60	-1.33	0.48	-0.95	-1.47													-0.84	0.71
c13_ring_set D																				
c13_ring_set E	0.08	-1.12	-0.48	-0.86	0.64	0.70													-0.17	0.77
c13_ring_set F	0.53	-0.05	0.20	1.00	0.30	-1.01													0.16	0.67
c13_ring_set G	0.13	-0.18	-0.57	-1.80	-0.48	-0.51													-0.57	0.66
c13_ring_set H	-0.43	1.10	0.73	0.04	0.97	-0.80													0.27	0.78
c13_ring_set I	1.01	-0.68	-1.90	-1.74	-1.85	-1.78													-1.16	1.16
Yi MAXIMUM	-1.15	-1.12	-1.90	-1.80	-1.85	-1.78													-1.16	1.16
Yi MINIMUM	0.08	-0.05	0.20	0.04	0.30	-0.51													0.16	0.66
Yi MEAN	0.03	-0.25	-0.56	-0.48	-0.23	-0.81														
Yi STD	0.75	0.77	0.96	1.17	1.07	0.87														

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	66.7%
-2 lt yi le -1	10	27.8%	-2 < yi ≤ 2	100.0%
-1 lt yi le 0	12	33.3%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	12	33.3%	>3	0.0%
1 lt yi le 2	2	5.6%		
2 lt yi le 3	0	0.0%	Overall Yi STD	0.92
3 lt yi	0	0.0%		
total	36	100.0%	Parts Rated	6

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop (C13 Rings)

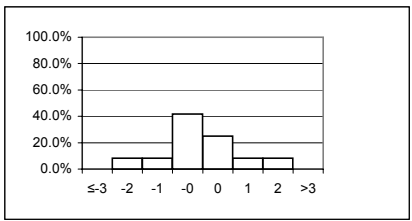
Rater = **Borland, Rob**

YI VALUES

	Ring 1	Ring 2	Ring 3	Ring 4	Ring 5	Ring 6											MEAN	STD
calibration_c13_ring_s	0.13	-1.00	-0.14	-0.29	-0.25	1.10											-0.08	0.69
c13_ring_set D																		
c13_ring_set E	2.09	-0.89	-0.32	0.91	0.10	-2.01											-0.02	1.42
c13_ring_set F																		
c13_ring_set G																		
c13_ring_set H																		
c13_ring_set I																		
Yi MAXIMUM	2.09	-1.00	-0.32	0.91	-0.25	-2.01											-0.08	1.42
Yi MINIMUM	0.13	-0.89	-0.14	-0.29	0.10	1.10											-0.02	0.69
Yi MEAN	1.11	-0.95	-0.23	0.31	-0.08	-0.45												
Yi STD	1.38	0.08	0.13	0.85	0.25	2.20												

yi le	count	percent		
-3	0	0.0%		
-2	1	8.3%	-1 < yi ≤ 1	66.7%
-1	1	8.3%	-2 < yi ≤ 2	83.3%
0	5	41.7%	-3 < yi ≤ 3	100.0%
1	3	25.0%	>3	0.0%
2	1	8.3%		
3	1	8.3%	Overall Yi STD	1.07
	0	0.0%	Parts Rated	2
total	12	100.0%		

Yi distribution (excluding shaded columns)



Group: Yellow

October 1-5, 2006

Heavy Duty Rating Workshop (C13 Rings)

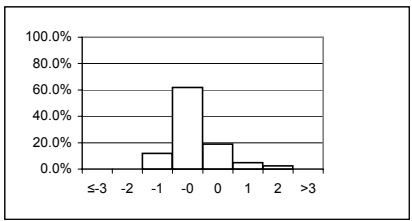
Rater = Castillo, George

Yi VALUES

	Ring 1	Ring 2	Ring 3	Ring 4	Ring 5	Ring 6													MEAN	STD
calibration_c13_ring_s	-0.94	0.22	-0.51	-0.19	0.81	0.91													0.05	0.73
c13_ring_set D	-0.43	-0.15	-0.35	-1.52	-0.94	-1.02													-0.74	0.51
c13_ring_set E	-0.71	1.54	-0.92	-0.56	-1.05	-0.24													-0.32	0.96
c13_ring_set F	1.55	2.13	-0.48	0.50	-1.83	-0.47													0.23	1.46
c13_ring_set G	-0.92	-0.48	-0.58	-0.25	-0.59	-1.16													-0.66	0.33
c13_ring_set H	0.05	0.29	-0.19	0.52	-0.84	-0.76													-0.15	0.55
c13_ring_set I	-0.18	-0.06	-0.16	-0.20	-0.13	0.88													0.03	0.42
Yi MAXIMUM	1.55	2.13	-0.92	-1.52	-1.83	-1.16													-0.74	1.46
Yi MINIMUM	0.05	-0.06	-0.16	-0.19	-0.13	-0.24													0.03	0.33
Yi MEAN	-0.23	0.50	-0.46	-0.24	-0.65	-0.26														
Yi STD	0.86	0.96	0.26	0.69	0.82	0.85														

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	81.0%
-2 lt yi le -1	5	11.9%	-2 < yi ≤ 2	97.6%
-1 lt yi le 0	26	61.9%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	8	19.0%	>3	0.0%
1 lt yi le 2	2	4.8%		
2 lt yi le 3	1	2.4%	Overall Yi STD	0.81
3 lt yi	0	0.0%	Parts Rated	7
total	42	100.0%		

Yi distribution (excluding shaded columns)



Group: Red

October 1-5, 2006

Heavy Duty Rating Workshop (C13 Rings)

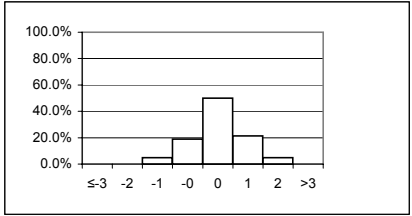
Rater = Foecking, Brian

Yi VALUES

	Ring 1	Ring 2	Ring 3	Ring 4	Ring 5	Ring 6													MEAN	STD
calibration_c13_ring_s	0.93	0.36	1.67	1.01	1.16	0.95													1.01	0.42
c13_ring_set D	1.19	-0.02	0.16	0.19	0.80	0.82													0.52	0.48
c13_ring_set E	0.41	-0.05	0.96	-0.12	1.36	0.79													0.56	0.59
c13_ring_set F	-1.46	-0.74	-0.83	0.17	0.20	-0.17													-0.47	0.65
c13_ring_set G	0.78	2.13	1.24	0.29	2.39	1.57													1.40	0.80
c13_ring_set H	0.62	0.82	1.00	-1.57	0.58	-0.48													0.16	0.99
c13_ring_set I	0.24	1.08	0.87	-0.66	0.82	0.45													0.47	0.63
Yi MAXIMUM	-1.46	2.13	1.67	-1.57	2.39	1.57													1.40	0.99
Yi MINIMUM	0.24	-0.02	0.16	-0.12	0.20	-0.17													0.16	0.42
Yi MEAN	0.39	0.51	0.72	-0.10	1.05	0.56														
Yi STD	0.87	0.93	0.82	0.82	0.70	0.70														

	count	percent		
yi le -3	0	0.0%	-1 < yi ≤ 1	69.0%
-3 lt yi le -2	0	0.0%	-2 < yi ≤ 2	95.2%
-2 lt yi le -1	2	4.8%	-3 < yi ≤ 3	100.0%
-1 lt yi le 0	8	19.0%	>3	0.0%
0 lt yi le 1	21	50.0%	Overall Yi STD	0.84
1 lt yi le 2	9	21.4%	Parts Rated	7
2 lt yi le 3	2	4.8%		
3 lt yi	0	0.0%		
total	42	100.0%		

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop (C13 Rings)

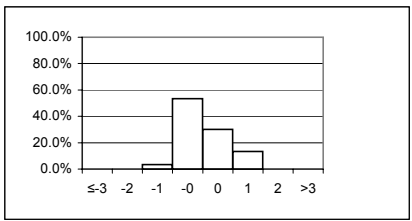
Rater = Kobrinetz, Jack

YI VALUES

	Ring 1	Ring 2	Ring 3	Ring 4	Ring 5	Ring 6											MEAN	STD
calibration_c13_ring_s	-0.03	-0.32	-0.19	-0.57	-0.21	-0.51											-0.30	0.20
c13_ring_set D	1.69	1.30	1.12	0.62	-0.10	0.74											0.89	0.62
c13_ring_set E	-0.43	-0.47	0.58	0.17	0.73	0.59											0.20	0.53
c13_ring_set F	-0.87	0.67	1.99	-0.31	-0.09	0.68											0.35	1.00
c13_ring_set G	-1.44	-0.56	-0.69	-0.16	-0.16	0.55											-0.41	0.67
c13_ring_set H																		
c13_ring_set I																		
Yi MAXIMUM	1.69	1.30	1.99	0.62	0.73	0.74											0.89	1.00
Yi MINIMUM	-0.03	-0.32	-0.19	-0.16	-0.09	-0.51											0.20	0.20
Yi MEAN	-0.22	0.12	0.56	-0.05	0.04	0.41												
Yi STD	1.19	0.82	1.06	0.46	0.39	0.52												

yi le	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	83.3%
-2 lt yi le -1	1	3.3%	-2 < yi ≤ 2	100.0%
-1 lt yi le 0	16	53.3%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	9	30.0%	>3	0.0%
1 lt yi le 2	4	13.3%		
2 lt yi le 3	0	0.0%	Overall Yi STD	0.78
3 lt yi	0	0.0%	Parts Rated	5
total	30	100.0%		

Yi distribution (excluding shaded columns)



Group: Red

October 1-5, 2006

Heavy Duty Rating Workshop (C13 Rings)

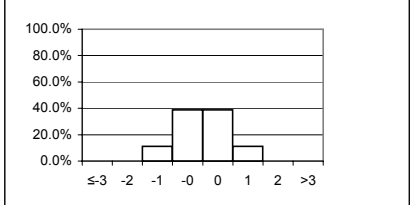
Rater = Lopez, Frank

Yi VALUES

	Ring 1	Ring 2	Ring 3	Ring 4	Ring 5	Ring 6												MEAN	STD
calibration_c13_ring_s	-0.56	-0.60	-0.61	-1.22	0.62	0.03												-0.39	0.63
c13_ring_set D																			
c13_ring_set E																			
c13_ring_set F																			
c13_ring_set G																			
c13_ring_set H	-0.52	0.29	1.71	0.94	-0.95	-1.17												0.05	1.13
c13_ring_set I	-0.36	-0.59	0.74	1.19	0.44	0.45												0.31	0.67
Yi MAXIMUM	-0.56	-0.60	1.71	-1.22	-0.95	-1.17												-0.39	1.13
Yi MINIMUM	-0.36	0.29	-0.61	0.94	0.44	0.03												0.05	0.63
Yi MEAN	-0.48	-0.30	0.61	0.30	0.04	-0.23													
Yi STD	0.11	0.51	1.16	1.32	0.86	0.84													

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	77.8%
-2 lt yi le -1	2	11.1%	-2 < yi ≤ 2	100.0%
-1 lt yi le 0	7	38.9%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	7	38.9%	>3	0.0%
1 lt yi le 2	2	11.1%		
2 lt yi le 3	0	0.0%	Overall Yi STD	0.84
3 lt yi	0	0.0%		
total	18	100.0%	Parts Rated	3

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop (C13 Rings)

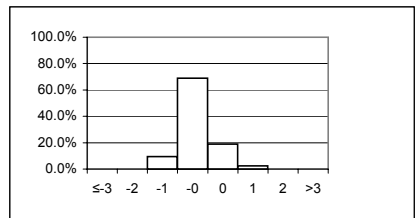
Rater = May, Marianne

YI VALUES

	Ring 1	Ring 2	Ring 3	Ring 4	Ring 5	Ring 6												MEAN	STD
calibration_c13_ring_s	0.08	-0.73	0.48	-0.94	0.29	-0.32												-0.19	0.57
c13_ring_set D	-0.43	-0.59	-0.15	-1.19	-0.04	-0.12												-0.42	0.43
c13_ring_set E	-0.33	-0.71	-0.67	-0.86	0.40	0.40												-0.30	0.56
c13_ring_set F	-0.99	-0.89	-0.83	-0.91	-0.99	-0.17												-0.80	0.31
c13_ring_set G	-0.27	1.10	-0.25	-0.34	0.27	-0.82												-0.05	0.66
c13_ring_set H	-0.33	0.59	-0.76	-1.16	-0.33	-0.07												-0.34	0.60
c13_ring_set I	-0.72	-0.53	-1.05	-1.13	-0.52	0.02												-0.65	0.42
Yi MAXIMUM	-0.99	1.10	-1.05	-1.19	-0.99	-0.82												-0.80	0.66
Yi MINIMUM	0.08	-0.53	-0.15	-0.34	-0.04	0.02												-0.05	0.31
Yi MEAN	-0.43	-0.25	-0.46	-0.93	-0.13	-0.15													
Yi STD	0.34	0.77	0.52	0.29	0.51	0.37													

	count	percent		
yi le -3	0	0.0%	-1 < yi ≤ 1	88.1%
-3 lt yi le -2	0	0.0%	-2 < yi ≤ 2	100.0%
-2 lt yi le -1	4	9.5%	-3 < yi ≤ 3	100.0%
-1 lt yi le 0	29	69.0%	>3	0.0%
0 lt yi le 1	8	19.0%		
1 lt yi le 2	1	2.4%	Overall Yi STD	0.54
2 lt yi le 3	0	0.0%	Parts Rated	7
3 lt yi	0	0.0%		
total	42	100.0%		

Yi distribution (excluding shaded columns)



Group: Blue

October 1-5, 2006

Heavy Duty Rating Workshop (C13 Rings)

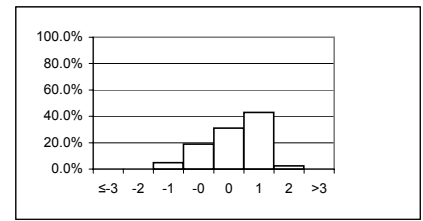
Rater = Pansza, Mike

YI VALUES

	Ring 1	Ring 2	Ring 3	Ring 4	Ring 5	Ring 6												MEAN	STD
calibration_c13_ring_s	0.56	-0.32	1.34	-0.47	0.15	-0.13												0.19	0.67
c13_ring_set_D	0.07	1.45	1.88	1.55	1.14	1.56												1.27	0.64
c13_ring_set_E	1.20	-0.89	1.13	1.21	1.00	1.13												0.80	0.83
c13_ring_set_F	0.45	-0.34	1.15	0.82	0.94	-0.67												0.39	0.74
c13_ring_set_G	1.65	-0.64	2.22	-0.52	-1.33	1.23												0.44	1.45
c13_ring_set_H	0.24	0.67	0.78	1.36	1.35	0.89												0.88	0.43
c13_ring_set_I	1.03	1.28	0.61	0.11	0.06	-1.55												0.26	1.01
Yi MAXIMUM	1.65	1.45	2.22	1.55	1.35	1.56												1.27	1.45
Yi MINIMUM	0.07	-0.32	0.61	0.11	0.06	-0.13												0.19	0.43
Yi MEAN	0.74	0.17	1.30	0.58	0.47	0.35													
Yi STD	0.57	0.95	0.58	0.87	0.93	1.16													

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	50.0%
-2 lt yi le -1	2	4.8%	-2 < yi ≤ 2	97.6%
-1 lt yi le 0	8	19.0%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	13	31.0%	>3	0.0%
1 lt yi le 2	18	42.9%	Overall Yi STD	0.89
2 lt yi le 3	1	2.4%	Parts Rated	7
3 lt yi	0	0.0%		
total	42	100.0%		

Yi distribution (excluding shaded columns)



Group: Yellow

October 1-5, 2006

Heavy Duty Rating Workshop (C13 Rings)

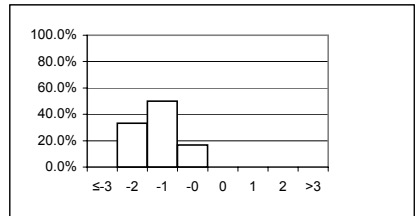
Rater = Radonich, Pete

YI VALUES

	Ring 1	Ring 2	Ring 3	Ring 4	Ring 5	Ring 6												MEAN	STD
calibration_c13_ring_s	-1.42	-1.55	-1.63	-0.75	-2.54	-2.20												-1.68	0.63
c13_ring_set D																			
c13_ring_set E																			
c13_ring_set F																			
c13_ring_set G																			
c13_ring_set H																			
c13_ring_set I																			
Yi MAXIMUM	-1.42	-1.55	-1.63	-0.75	-2.54	-2.20												-1.68	0.63
Yi MINIMUM	-1.42	-1.55	-1.63	-0.75	-2.54	-2.20												-1.68	0.63
Yi MEAN	-1.42	-1.55	-1.63	-0.75	-2.54	-2.20													
Yi STD																			

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	2	33.3%	-1 < yi ≤ 1	16.7%
-2 lt yi le -1	3	50.0%	-2 < yi ≤ 2	66.7%
-1 lt yi le 0	1	16.7%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	0	0.0%	>3	0.0%
1 lt yi le 2	0	0.0%		
2 lt yi le 3	0	0.0%	Overall Yi STD	0.63
3 lt yi	0	0.0%		
total	6	100.0%	Parts Rated	1

Yi distribution (excluding shaded columns)



Group: Yellow

October 1-5, 2006

Heavy Duty Rating Workshop (C13 Rings)

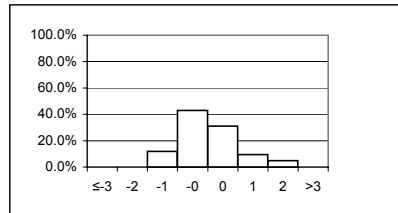
Rater = Viera, Ralph

YI VALUES

	Ring 1	Ring 2	Ring 3	Ring 4	Ring 5	Ring 6												MEAN	STD
calibration_c13_ring_s	2.32	0.90	1.04	-0.38	1.11	0.37												0.89	0.89
c13_ring_set D	-1.40	0.04	-0.27	0.51	-1.73	-0.07												-0.49	0.88
c13_ring_set E	-0.47	0.23	-0.67	-0.42	-1.54	0.30												-0.43	0.67
c13_ring_set F	1.08	-0.20	0.10	-0.15	1.47	2.34												0.78	1.03
c13_ring_set G	-0.37	-0.95	-0.91	0.92	-0.05	0.04												-0.22	0.70
c13_ring_set H	0.05	-0.23	-0.94	0.21	-0.95	0.61												-0.21	0.63
c13_ring_set I	-1.26	-1.53	-0.80	0.42	-0.13	-0.26												-0.59	0.74
Yi MAXIMUM	2.32	-1.53	1.04	0.92	-1.73	2.34												0.89	1.03
Yi MINIMUM	0.05	0.04	0.10	-0.15	-0.05	0.04												-0.21	0.63
Yi MEAN	-0.01	-0.25	-0.35	0.16	-0.26	0.47													
Yi STD	1.32	0.79	0.72	0.50	1.24	0.87													

yi le	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	0	0.0%	-1 < yi ≤ 1	73.8%
-2 lt yi le -1	5	11.9%	-2 < yi ≤ 2	95.2%
-1 lt yi le 0	18	42.9%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	13	31.0%	>3	0.0%
1 lt yi le 2	4	9.5%		
2 lt yi le 3	2	4.8%	Overall Yi STD	0.94
3 lt yi	0	0.0%		
total	42	100.0%	Parts Rated	7

Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop (C13 Rings)

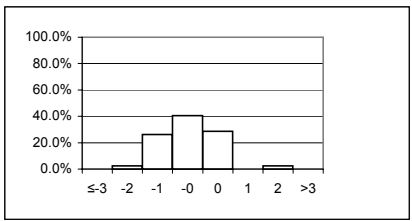
Rater = Yanchar, Paul

Yi VALUES

	Ring 1	Ring 2	Ring 3	Ring 4	Ring 5	Ring 6											MEAN	STD
calibration_c13_ring_s	0.56	0.49	-0.11	0.36	-0.25	-0.13											0.15	0.36
c13_ring_set D	-0.54	-1.51	-0.94	0.70	-0.78	-1.76											-0.80	0.87
c13_ring_set E	-1.50	0.79	-1.69	-1.74	-1.60	-1.71											-1.24	1.00
c13_ring_set F	-0.31	-1.11	-0.95	-2.06	-0.49	-0.57											-0.91	0.63
c13_ring_set G	-0.95	-1.03	0.19	0.38	0.05	-0.99											-0.39	0.67
c13_ring_set H	2.14	-1.95	-0.80	-0.95	-1.35	-0.89											-0.64	1.42
c13_ring_set I	-0.33	-0.86	0.10	0.88	0.82	0.88											0.25	0.74
Yi MAXIMUM	2.14	-1.95	-1.69	-2.06	-1.60	-1.76											-1.24	1.42
Yi MINIMUM	-0.31	0.49	0.10	0.36	0.05	-0.13											0.15	0.36
Yi MEAN	-0.13	-0.74	-0.60	-0.35	-0.51	-0.74												
Yi STD	1.18	1.01	0.69	1.22	0.83	0.92												

	count	percent		
yi le -3	0	0.0%		
-3 lt yi le -2	1	2.4%	-1 < yi ≤ 1	69.0%
-2 lt yi le -1	11	26.2%	-2 < yi ≤ 2	95.2%
-1 lt yi le 0	17	40.5%	-3 < yi ≤ 3	100.0%
0 lt yi le 1	12	28.6%	>3	0.0%
1 lt yi le 2	0	0.0%		
2 lt yi le 3	1	2.4%	Overall Yi STD	0.96
3 lt yi	0	0.0%		
total	42	100.0%	Parts Rated	7














Yi distribution (excluding shaded columns)



Group: White

October 1-5, 2006

Heavy Duty Rating Workshop (C13 Rings)

	Number of Parts Rated	-1 < yi ≤ 1	-2 < yi ≤ 2	-3 < yi ≤ 3	>3	Yi STD	Group	
Avis, Steve	6	66.7%	100.0%	100.0%	0.0%	0.92	White	
Barrera, Tony	7	90.5%	100.0%	100.0%	0.0%	0.54	Blue	
Borland, Rob	2	66.7%	83.3%	100.0%	0.0%	1.07	Yellow	
Castillo, George	7	81.0%	97.6%	100.0%	0.0%	0.81	Red	
Cole, Steve	6	41.7%	94.4%	100.0%	0.0%	1.26	Yellow	
Foecking, Brian	7	69.0%	95.2%	100.0%	0.0%	0.84	White	
Kobrinetz, Jack	5	83.3%	100.0%	100.0%	0.0%	0.78	Red	
Lopez, Frank	3	77.8%	100.0%	100.0%	0.0%	0.84	White	
May, Marianne	7	88.1%	100.0%	100.0%	0.0%	0.54	Blue	
Pansza, Mike	7	50.0%	97.6%	100.0%	0.0%	0.89	Yellow	
Radonich, Pete	1	16.7%	66.7%	100.0%	0.0%	0.63	Yellow	
Viera, Ralph	7	73.8%	95.2%	100.0%	0.0%	0.94	White	
Yanchar, Paul	7	69.0%	95.2%	100.0%	0.0%	0.96	White	

	Minimum Number of Parts Rated	Minimum Yi's within 1 STD of mean	Minimum Yi's within 2 STD of mean	Maximum Overall Yi STD	Group Total	
White	0	60%	90%	1.20	5	38%
Red	0	80%	95%	0.85	2	15%
Blue	0	85%	98%	0.75	2	15%
Yellow	-	-	-	-	4	31%

