

**APPENDIX A33**

**MODEL SUMMARY FOR REGRESSION OF PEEL FORCE ON BURST PRESSURE - OVERALL**

**Table A33-1. Parameter coefficients and model fit statistics for regression of peak force at burst location on burst pressure – overall**

Model	Model ID	Dependent Variable	Intercept	Burst Pressure	Gap	Burst Pressure x Gap	R square	Adjusted R Square	Prediction R Square	Mallow's Cp	Akaike's AIC	RMSE	PRESS	PRESS - SSE	Adj RSq - RSq	Cp - P	Model Selected
M13	M13-1	PeakForce_at_BurstLoc	4.27	0.09			0.04	0.04	0.02	2	139.36	1.74	380.45	11.04	0.01	0.00	TRUE
M13	M13-2	PeakForce_at_BurstLoc	4.35	0.09	-0.14		0.04	0.03	0.00	3	141.33	1.75	387.36	18.03	0.02	0.00	
M9	M9-1	PeakForce_at_BurstLoc	4.41			0.15	0.02	0.01	-0.01	2	142.08	1.76	388.78	11.19	0.01	0.00	
M13	M13-3	PeakForce_at_BurstLoc	5.20		-0.80		0.01	0.00	-0.02	2	143.76	1.77	395.03	12.27	0.01	0.00	
M13	M13-4	PeakForce_at_BurstLoc		0.32	5.26		0.83	0.83	0.83	2	187.05	2.11	554.63	11.96	0.00	0.00	
M13	M13-5	PeakForce_at_BurstLoc			7.90		0.73	0.73	0.73	1	242.98	2.65	875.67	9.84	0.00	0.00	
M9	M9-2	PeakForce_at_BurstLoc				1.33	0.64	0.64	0.63	1	279.47	3.07	1186.15	24.10	0.00	0.00	TRUE

**Table A33-2. ANOVA statistics for regression of peak force at burst location on burst pressure – overall**

Model	Model ID	N	Model DF	Error DF	Total DF	MSE	SSE	SSR	SST	F Value for the model	Prob > F for the Model	t Value for Intercept	Prob > t for Intercept	t Value for Burst Pressure	Prob > t for Burst Pressure	t Value for Gap	Prob > t for Gap	t Value for Burst Pressure x Gap	Prob > t for Burst Pressure x Gap
M13	M13-1	124	2	122	123	3.03	369.41	16.93	386.26	2.77	0.07	7.54	0.00	2.10	0.04	-0.17	0.87		
M13	M13-2	124	2	121	123	3.05	369.33	16.93	386.26	2.77	0.07	7.54	0.00	2.10	0.04	-0.17	0.87		
M9	M9-1	124	1	122	123	3.10	377.59	8.66	386.26	2.80	0.10	15.92	0.00					1.67	0.10
M13	M13-3	124	2	122	123	3.14	382.76	16.93	386.26	2.77	0.07	7.54	0.00	2.10	0.04	-0.17	0.87		
M13	M13-4	124	2	122	124	4.45	542.67	2689.85	3232.52	302.36	0.00			8.52	0.00	11.40	0.00		
M13	M13-5	124	2	123	124	7.04	865.83	2689.85	3232.52	302.36	0.00			8.52	0.00	11.40	0.00		
M9	M9-2	124	1	123	124	9.45	1162.06	2070.47	3232.52	219.15	0.00							14.80	0.00

**Table A33-3. Parameter coefficients and model fit statistics for regression of average force at burst location on burst pressure – overall**

Model	Model ID	Dependent Variable	Intercept	Burst Pressure	Gap	Burst Pressure x Gap	R square	Adjusted R Square	Prediction R Square	Mallow's Cp	Akaike's AIC	RMSE	PRESS	PRESS - SSE	Adj RSq - RSq	Cp - P	Model Selected
M14	M14-1	AvgForce_at_BurstLoc	2.98	0.12			0.09	0.08	0.06	2	99.11	1.48	275.00	7.99	0.01	0.00	TRUE
M14	M14-2	AvgForce_at_BurstLoc	2.59	0.13	0.62		0.10	0.08	0.06	3	100.28	1.48	277.75	12.53	0.01	0.00	
M10	M10-1	AvgForce_at_BurstLoc	3.09			0.22	0.06	0.05	0.03	2	103.22	1.50	284.44	8.42	0.01	0.00	TRUE
M14	M14-3	AvgForce_at_BurstLoc	3.82		-0.34		0.00	-0.01	-0.03	2	110.80	1.55	302.69	9.28	0.01	0.00	
M14	M14-4	AvgForce_at_BurstLoc		0.27	3.83		0.83	0.83	0.83	2	124.08	1.64	335.09	8.51	0.00	0.00	
M14	M14-5	AvgForce_at_BurstLoc			6.04		0.71	0.71	0.71	1	187.54	2.12	560.10	6.44	0.00	0.00	
M10	M10-2	AvgForce_at_BurstLoc				1.05	0.66	0.66	0.65	1	209.63	2.32	677.36	15.74	0.00	0.00	

**Table A33-4. ANOVA statistics for regression of average force at burst location on burst pressure – overall**

Model	Model ID	N	Model DF	Error DF	Total DF	MSE	SSE	SSR	SST	F Value for the model	Prob > F for the Model	t Value for Intercept	Prob > t for Intercept	t Value for Burst Pressure	Prob > t for Burst Pressure	t Value for Gap	Prob > t for Gap	t Value for Burst Pressure x Gap	Prob > t for Burst Pressure x Gap
M14	M14-1	124	2	122	123	2.19	267.00	28.84	294.06	6.58	0.00	5.29	0.00	3.59	0.00	0.90	0.37		
M14	M14-2	124	2	121	123	2.19	265.22	28.84	294.06	6.58	0.00	5.29	0.00	3.59	0.00	0.90	0.37		
M10	M10-1	124	1	122	123	2.26	276.01	18.04	294.06	7.98	0.01	13.06	0.00					2.82	0.01
M14	M14-3	124	2	122	123	2.41	293.42	28.84	294.06	6.58	0.00	5.29	0.00	3.59	0.00	0.90	0.37		
M14	M14-4	124	2	122	124	2.68	326.58	1611.79	1938.38	301.05	0.00			9.21	0.00	10.70	0.00		
M14	M14-5	124	2	123	124	4.50	553.66	1611.79	1938.38	301.05	0.00			9.21	0.00	10.70	0.00		
M10	M10-2	124	1	123	124	5.38	661.62	1276.76	1938.38	237.36	0.00							15.41	0.00

**Table A33-5. Parameter coefficients and model fit statistics for regression of lowest peak force on burst pressure – overall**

Model	Model ID	Dependent Variable	Intercept	Burst Pressure	Gap	Burst Pressure x Gap	R square	Adjusted R Square	Prediction R Square	Mallow's Cp	Akaike's AIC	RMSE	PRESS	PRESS - SSE	Adj RSq - RSq	Cp - P	Model Selected
M15	M15-1	LowPeakForce	2.36	0.18	1.19		0.16	0.15	0.12	3	102.23	1.49	282.53	13.08	0.01	0.00	TRUE
M15	M15-2	LowPeakForce	3.11	0.15			0.14	0.13	0.11	2	103.21	1.50	284.57	8.59	0.01	0.00	
M11	M11-1	LowPeakForce	3.16			0.32	0.12	0.11	0.09	2	105.95	1.52	291.17	9.03	0.01	0.00	TRUE
M15	M15-3	LowPeakForce		0.30	4.12		0.86	0.86	0.86	2	121.78	1.62	329.07	8.49	0.00	0.00	
M15	M15-4	LowPeakForce	4.02		-0.11		0.00	-0.01	-0.03	2	121.92	1.62	330.96	10.02	0.01	0.00	
M15	M15-5	LowPeakForce			6.62		0.73	0.73	0.73	1	199.55	2.23	616.81	6.83	0.00	0.00	
M11	M11-2	LowPeakForce				1.17	0.70	0.70	0.69	1	213.82	2.36	702.71	18.33	0.00	0.00	

**Table A33-6. ANOVA statistics for regression of lowest peak force on burst pressure – overall**

Model	Model ID	N	Model DF	Error DF	Total DF	MSE	SSE	SSR	SST	F Value for the model	Prob > F for the Model	t Value for Intercept	Prob > t for Intercept	t Value for Burst Pressure	Prob > t for Burst Pressure	t Value for Gap	Prob > t for Gap	t Value for Burst Pressure x Gap	Prob > t for Burst Pressure x Gap
M15	M15-1	124	2	121	123	2.23	269.45	51.57	321.01	11.58	0.00	4.79	0.00	4.81	0.00	1.71	0.09		
M15	M15-2	124	2	122	123	2.26	275.98	51.57	321.01	11.58	0.00	4.79	0.00	4.81	0.00	1.71	0.09		
M11	M11-1	124	1	122	123	2.31	282.15	38.87	321.01	16.81	0.00	13.19	0.00					4.10	0.00
M15	M15-3	124	2	122	124	2.63	320.58	1949.31	2269.89	370.91	0.00			10.49	0.00	11.62	0.00		
M15	M15-4	124	2	122	123	2.63	320.94	51.57	321.01	11.58	0.00	4.79	0.00	4.81	0.00	1.71	0.09		
M15	M15-5	124	2	123	124	4.96	609.98	1949.31	2269.89	370.91	0.00			10.49	0.00	11.62	0.00		
M11	M11-2	124	1	123	124	5.56	684.38	1585.52	2269.89	284.96	0.00							16.88	0.00

**Table A33-7. Parameter coefficients and model fit statistics for regression of lowest average force on burst pressure – overall**

Model	Model ID	Dependent Variable	Intercept	Burst Pressure	Gap	Burst Pressure x Gap	R square	Adjusted R Square	Prediction R Square	Mallow's Cp	Akaike's AIC	RMSE	PRESS	PRESS - SSE	Adj RSq - RSq	Cp - P	Model Selected
M16	M16-1	LowAvgForce	1.55	0.17	1.02		0.20	0.19	0.16	3	54.63	1.23	192.63	9.08	0.01	0.00	TRUE
M16	M16-2	LowAvgForce	2.19	0.15			0.18	0.17	0.15	2	55.82	1.24	194.29	5.95	0.01	0.00	
M12	M12-1	LowAvgForce	2.25			0.30	0.15	0.14	0.12	2	60.32	1.27	202.08	6.79	0.01	0.00	TRUE
M16	M16-3	LowAvgForce		0.25	2.95		0.85	0.85	0.84	2	66.73	1.30	211.59	5.94	0.00	0.00	
M16	M16-4	LowAvgForce	3.11		-0.21		0.00	-0.01	-0.03	2	80.00	1.37	236.08	7.20	0.01	0.00	
M16	M16-5	LowAvgForce		0.41			0.71	0.71	0.71	1	143.03	1.77	393.84	7.15	0.00	0.00	
M12	M12-2	LowAvgForce				0.90	0.70	0.70	0.69	1	147.23	1.80	411.92	11.92	0.00	0.00	



**Table A33-8. ANOVA statistics for regression of lowest average force on burst pressure – overall**

Model	Model ID	N	Model DF	Error DF	Total DF	MSE	SSE	SSR	SST	F Value for the model	Prob > F for the Model	t Value for Intercept	Prob > t for Intercept	t Value for Burst Pressure	Prob > t for Burst Pressure	t Value for Gap	Prob > t for Gap	t Value for Burst Pressure x Gap	Prob > t for Burst Pressure x Gap
M16	M16-1	124	2	121	123	1.52	183.55	45.56	229.11	15.02	0.00	3.82	0.00	5.47	0.00	1.78	0.08		
M16	M16-2	124	2	122	123	1.54	188.33	45.56	229.11	15.02	0.00	3.82	0.00	5.47	0.00	1.78	0.08		
M12	M12-1	124	1	122	123	1.60	195.29	33.82	229.11	21.13	0.00	11.31	0.00					4.60	0.00
M16	M16-3	124	2	122	124	1.69	205.65	1143.33	1348.98	339.13	0.00			10.78	0.00	10.36	0.00		
M16	M16-4	124	2	122	123	1.88	228.88	45.56	229.11	15.02	0.00	3.82	0.00	5.47	0.00	1.78	0.08		
M16	M16-5	124	2	123	124	3.14	386.69	1143.33	1348.98	339.13	0.00			10.78	0.00	10.36	0.00		
M12	M12-2	124	1	123	124	3.25	400.00	948.98	1348.98	291.81	0.00							17.08	0.00