

STORED ENERGY DATA

Date: 5/17/2005

BOW MFGR.- 3 RIVERS ARCHERY **BRACE HEIGHT.=** 7.06 INCHES
MODEL - TOMAHAWK DESERT FOX **ZERO INTERCEPT =** 8.81 INCHES
DRAW LENGTH = 26.00 INCHES **P.D.F. =** 51.70 POUNDS

S.N. -

DR LNTH	FORCE	^INCH	^POUND	ELM. AREA	SUM AREA	SUM AREA
INCHES	POUNDS	INCHES	POUNDS	INCH LB.	INCH LB.	FT. LB.
5.00		1.00				0.00
6.00		1.00	0.00	0.00	0.00	0.00
7.00		1.81	0.00	0.00	0.00	0.00
8.81	0.0	0.19	0.00	0.00	0.00	0.00
9.00	2.2	1.00	2.20	0.21	0.21	0.02
10.00	7.5	1.00	5.30	4.85	5.06	0.42
11.00	12.0	1.00	4.50	9.75	14.81	1.23
12.00	15.6	1.00	3.60	13.80	28.61	2.38
13.00	19.0	1.00	3.40	17.30	45.91	3.83
14.00	22.0	1.00	3.00	20.50	66.41	5.53
15.00	24.7	1.00	2.70	23.35	89.76	7.48
16.00	27.2	1.00	2.50	25.95	115.71	9.64
17.00	29.6	1.00	2.40	28.40	144.11	12.01
18.00	32.0	1.00	2.40	30.80	174.91	14.58
19.00	34.3	1.00	2.30	33.15	208.06	17.34
20.00	36.7	1.00	2.40	35.50	243.56	20.30
21.00	39.1	1.00	2.40	37.90	281.46	23.45
22.00	41.4	1.00	2.30	40.25	321.71	26.81
23.00	43.0	1.00	1.60	42.20	363.91	30.33
24.00	46.3	1.00	3.30	44.65	408.56	34.05
25.00	49.0	1.00	2.70	47.65	456.21	38.02
26.00	51.7	1.00	2.70	50.35	506.56	42.21
27.00		1.00	0.00	0.00	0.00	0.00
28.00		1.00	0.00	0.00	0.00	0.00
29.00		1.00	0.00	0.00	0.00	0.00
30.00		1.00	0.00	0.00	0.00	0.00
31.00		1.00	0.00	0.00	0.00	0.00
32.00		1.00	0.00	0.00	0.00	0.00
33.00		1.00	0.00	0.00	0.00	0.00
34.00		1.00	0.00	0.00	0.00	0.00
35.00						0.00

STORED ENERGY (S.E.) = 42.213 FT.LB
S.E./P.D.F. = 0.817 FT.LB./LB.
% OF LET-OFF OVERALL= 29.01 PERCENT
% OF LET-OFF AT 30 IN. = 100.00 PERCENT
ENERGY STORING EFFICIENCY = 37.68 PERCENT OVERALL
ENERGY STORING EFFICIENCY = 57.01 PERCENT POWERSTROKE
BOTTOM OF VALLEY AT INCHES << ENTER VALUE
DRAW FORCE @VALLEY BOTTOM = LB.. << ENTER VALUE
LET-OFF AT BOTTOM OF VALLEY = PERCENT

LET-DOWN DATA

DR LENGH INCHES	FORCE POUNDS	^INCH INCHES	^POUND POUNDS	ELM. AREA INCH LB.	SUM AREA INCH LB.	SUM AREA FT. LB.
5.00		1.00				0.00
6.00		1.00	0.00	0.00	0.00	0.00
7.00		1.81	0.00	0.00	0.00	0.00
8.81	0.0	0.19	0.00	0.00	0.00	0.00
9.00	1.8	1.00	1.80	0.17	0.17	0.01
10.00	7.3	1.00	5.50	4.55	4.72	0.39
11.00	11.6	1.00	4.30	9.45	14.17	1.18
12.00	15.4	1.00	3.80	13.50	27.67	2.31
13.00	18.7	1.00	3.30	17.05	44.72	3.73
14.00	21.7	1.00	3.00	20.20	64.92	5.41
15.00	24.3	1.00	2.60	23.00	87.92	7.33
16.00	26.9	1.00	2.60	25.60	113.52	9.46
17.00	29.3	1.00	2.40	28.10	141.62	11.80
18.00	31.5	1.00	2.20	30.40	172.02	14.34
19.00	33.8	1.00	2.30	32.65	204.67	17.06
20.00	36.2	1.00	2.40	35.00	239.67	19.97
21.00	38.5	1.00	2.30	37.35	277.02	23.09
22.00	40.9	1.00	2.40	39.70	316.72	26.39
23.00	43.3	1.00	2.40	42.10	358.82	29.90
24.00	45.8	1.00	2.50	44.55	403.37	33.61
25.00	48.4	1.00	2.60	47.10	450.47	37.54
26.00	51.0	1.00	2.60	49.70	500.17	41.68
27.00		1.00	0.00	0.00	0.00	0.00
28.00		1.00	0.00	0.00	0.00	0.00
29.00		1.00	0.00	0.00	0.00	0.00
30.00		1.00	0.00	0.00	0.00	0.00
31.00		1.00	0.00	0.00	0.00	0.00
32.00		1.00	0.00	0.00	0.00	0.00
33.00		1.00	0.00	0.00	0.00	0.00
34.00		1.00	0.00	0.00	0.00	0.00
35.00						0.00

RECOVERED ENERGY = 41.681 FT.-LB

STATIC HYSTERESIS = 0.53 FT.-LB.

STATIC HYSTERESIS = 1.26 PERCENT OF STORED ENERGY

ARROW VELOCITY - TEST DATA

ARROW TYPE	WEIGHT GRAINS	VELOCITY FT. / SEC.	KIN. ENRGY FT.-LB.	DYN. EFFNC\ PERCENT	VIRT. MASS GRAINS
3-49/390	360.0	194.2	30.15	71.43	143.96
AFC 2300	407.0	185.2	31.01	73.45	147.13
2115	451.0	179.0	32.10	76.03	142.18
2315	495.0	171.2	32.22	76.33	153.46
2117	540.0	167.4	33.61	79.62	138.24
XT 19-12	599.0	157.8	33.13	78.48	164.27
2419	654.0	154.6	34.72	82.24	141.20
			0	0.00	0.00
			0	0.00	0.00
			0	0.00	0.00
			0	0.00	0.00
AVERAGE VIRTUAL MASS=					147.21

ENTER NUMBER OF ARROWS > 7 < HERE

ARO WGT. GRAINS	VIR MASS GRAINS	Wa ^2	Wa*Wk	Wk ^2		
360.0	143.96	129600.00	51824.91	20723.93		
407.0	147.13	165649.00	59881.51	21646.95		
451.0	142.18	203401.00	64123.37	20215.27		
495.0	153.46	245025.00	75964.29	23550.96	A =	0.01644613
540.0	138.24	291600.00	74648.38	19109.68		
599.0	164.27	358801.00	98398.44	26985.02	B =	138.967857
654.0	141.20	427716.00	92341.82	19936.16		
0.0	0.00	0.00	0.00	0.00		
0.0	0.00	0.00	0.00	0.00		
0.0	0.00	0.00	0.00	0.00		
0.0	0.00	0.00	0.00	0.00		

3506.0	1030.44	1821792.00	517182.73	152167.96		

PERFORMANCE FROM REGRESSION CURVE

ARO WGT. GRAINS	VIR MASS GRAINS	Wa+Wk GRAINS	VEL. FT./SEC.	DYN. EFF. PERCENT	KIN. ENERGY FT.-LB.
150	141.43	291.43	255.37	51.47	21.73
175	141.85	316.85	244.92	55.23	23.32
200	142.26	342.26	235.65	58.44	24.67
225	142.67	367.67	227.36	61.20	25.83
250	143.08	393.08	219.89	63.60	26.85
275	143.49	418.49	213.11	65.71	27.74
300	143.90	443.90	206.92	67.58	28.53
325	144.31	469.31	201.24	69.25	29.23
350	144.72	494.72	196.00	70.75	29.86
375	145.14	520.14	191.16	72.10	30.43
400	145.55	545.55	186.65	73.32	30.95
425	145.96	570.96	182.45	74.44	31.42
450	146.37	596.37	178.52	75.46	31.85

ARO WGT.	VIR MASS	Wa+Wk	VEL.	DYN. EFF.	KIN. ENERGY
GRAINS	GRAINS	GRAINS	FT./SEC.	PERCENT	FT.-LB.
475	146.78	621.78	174.84	76.39	32.25
500	147.19	647.19	171.37	77.26	32.61
525	147.60	672.60	168.10	78.06	32.95
550	148.01	698.01	165.01	78.80	33.26
575	148.42	723.42	162.09	79.48	33.55
600	148.84	748.84	159.31	80.12	33.82
625	149.25	774.25	156.68	80.72	34.08
650	149.66	799.66	154.17	81.28	34.31
675	150.07	825.07	151.78	81.81	34.54
700	150.48	850.48	149.49	82.31	34.74
360	144.89	504.89	194.02	71.30	30.10
540	147.85	687.85	166.23	78.51	33.14

RATING VELOCITY WITH 360 GRAIN ARROW (60#--30"-360 GR.) :

RATING VELOCITY WITH 540 GRAIN ARROW (60#-30"-540 GR.) :

ONLY THOSE ARROW WEIGHT VALUES CORRESPONDING TO THE ACCEPTABLE SPINE RANGE FOR THE TEST BOW AND WITHIN THE GENERAL RANGE OF ARROW WEIGHT TESTED SHOULD BE USED WITH COMPLETE CONFIDENCE. EXTRAPOLATING DATA FOR VERY LOW WEIGHT ARROWS ON HEAVIER BOWS MAY BE SUBJECT TO ERROR.