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Cylinder Test on C-4

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Cylinder Test on C-4

C.Souers May 3, 2007

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This is an old shot using a streak camera. The details are:

Explosive Name	Cylinder Shot No.	Expl. Density (g/cc)	Cylinder Material	Approx Diam inches	Detvel (mm/μs)	Inner Diameter (mm)	Wall Thickness (mm)	Shot Date
COMP C-4	289	1.601	Cu	1.00	8.193	25.430	2.593	740314

<u>time (us)</u>	<u>velocity (mm/us)</u>	<u>time (us)</u>	<u>R-Ro (mm)</u>
0.426	0.721	0.000	0.000
1.052	0.897	0.852	0.614
1.301	1.014	1.252	0.973
1.533	1.088	1.350	1.073
1.761	1.063	1.717	1.472
2.005	1.092	1.805	1.565
2.423	1.123	2.204	2.002
2.821	1.180	2.642	2.493
3.040	1.191	2.999	2.915
3.218	1.220	3.080	3.011
3.431	1.258	3.356	3.348
3.643	1.285	3.506	3.537
3.883	1.280	3.779	3.887
4.081	1.306	3.987	4.153
4.273	1.320	4.175	4.398
4.467	1.318	4.372	4.659
4.673	1.341	4.561	4.908
4.855	1.340	4.786	5.209
5.077	1.365	4.924	5.395
5.418	1.359	5.230	5.812
5.779	1.393	5.607	6.324
6.025	1.496	5.951	6.803
6.209	1.475	6.099	7.026
6.429	1.436	6.319	7.350
6.658	1.425	6.538	7.664

6.879	1.385	6.778	8.007
7.082	1.405	6.979	8.285
7.328	1.457	7.184	8.573
7.537	1.484	7.473	8.993
7.781	1.479	7.601	9.184
8.203	1.498	7.960	9.715
8.657	1.475	8.445	10.442
8.936	1.469	8.869	11.066
9.128	1.529	9.003	11.264
9.333	1.539	9.252	11.644
9.513	1.466	9.414	11.894
9.749	1.512	9.611	12.183
9.930	1.596	9.887	12.600
10.138	1.557	9.972	12.736
10.532	1.517	10.303	13.251
10.969	1.573	10.762	13.947
11.391	1.542	11.175	14.597
11.816	1.548	11.607	15.264
12.103	1.488	12.024	15.909
12.293	1.545	12.182	16.143
12.548	1.612	12.404	16.488
12.725	1.650	12.691	16.949
12.972	1.645	12.760	17.064
13.384	1.480	13.184	17.761
13.773	1.642	13.584	18.353
14.016	1.569	13.961	18.971
14.192	1.497	14.071	19.144
14.379	1.564	14.313	19.507
14.551	1.651	14.446	19.714
14.800	1.599	14.656	20.062
14.978	1.518	14.943	20.521
15.188	1.603	15.012	20.625
15.562	1.598	15.364	21.189
15.965	1.623	15.760	21.823
16.224	1.586	16.169	22.485
16.419	1.573	16.280	22.662
16.630	1.605	16.557	23.098
16.812	1.617	16.704	23.333
17.045	1.589	16.920	23.682
17.226	1.616	17.171	24.081
17.474	1.587	17.281	24.259

17.886	1.628	17.668	24.873
18.294	1.623	18.104	25.583
18.658	1.631	18.484	26.199
18.877	1.650	18.832	26.768
19.101	1.608	18.922	26.915
19.487	1.658	19.280	27.492
19.900	1.606	19.694	28.177
20.333	1.629	20.107	28.842
20.759	1.671	20.558	29.577
21.162	1.589	20.960	30.249
21.594	1.662	21.364	30.890
22.021	1.626	21.823	31.654
22.400	1.618	22.219	32.298
22.627	1.754	22.580	32.882
22.806	1.685	22.674	33.045
23.040	1.584	22.938	33.490
23.169	1.594	23.143	33.815
23.304	1.738	23.195	33.898
23.528	1.631	23.414	34.279
23.760	1.639	23.643	34.653
23.946	1.686	23.877	35.036
24.073	1.594	24.015	35.269
24.202	1.496	24.130	35.453
24.344	1.709	24.273	35.666
		24.414	35.907