Hardened Steel and Hard Alloys

C	A	D	Rockwell Scale				DPH 10 kg	KHN * 500 g and over	BHN 3000 kg	Tensile Strength, 103psi approximate
			15N	30N	45N	G				
70	86.5	78.5	94.0	86.0	77.5	-	1076	972	-	-
69	86.0	78.0	93.5	85.0	76.5	-	1004	946	-	-
68	85.5	77.0	-	84.5	75.5	-	942	920	-	-
67	85.0	76.0	93.0	83.5	74.5	-	894	895	-	-
66	84.5	75.5	92.5	83.0	73.0	-	854	870	-	-
65	84.0	74.5	92.0	82.0	72.0	-	820	846	-	-
64	83.5	74.0	-	81.0	71.0	-	789	822	-	-
63	83.0	73.0	91.5	80.0	70.0	-	763	799	-	-
62	82.5	72.5	91.0	79.0	69.0	-	739	776	-	-
61	81.5	71.5	90.5	78.5	67.5	-	716	754	-	-
60	81.0	71.0	90.0	77.5	66.5	-	695	732	614	-
59	80.5	70.0	89.5	76.5	65.5	-	675	710	600	-
58	80.0	69.0	-	75.5	64.0	-	655	690	587	-
57	79.5	68.5	89.0	75.0	63.0	-	636	670	573	-
56	79.0	67.5	88.5	74.0	62.0	-	617	650	560	-
55	78.5	67.0	88.0	73.0	61.0	-	598	630	547	301
54	78.0	66.0	87.5	72.0	59.5	-	580	612	534	291
53	77.5	65.5	87.0	71.0	58.5	-	562	594	522	282
52	77.0	64.5	86.5	70.5	57.5	-	545	576	509	273
51	76.5	64.0	86.0	69.5	56.0	-	528	558	496	264
50	76.0	63.0	85.5	68.5	55.0	-	513	542	484	255
49	75.5	62.0	85.0	67.5	54.0	-	498	526	472	246
48	74.5	61.5	84.5	66.5	52.5	-	485	510	460	237
47	74.0	60.5	84.0	66.0	51.5	-	471	495	448	229
46	73.5	60.0	83.5	65.0	50.0	-	458	480	437	221
45	73.0	59.0	83.0	64.0	49.0	-	446	466	426	214
44	72.5	58.5	82.5	63.0	48.0	-	435	452	415	207
43	72.0	57.5	82.0	62.0	46.5	-	424	438	404	200
42	71.5	57.0	81.5	61.5	45.5	-	413	426	393	194
41	71.0	56.0	81.0	60.5	44.5	-	403	414	382	188
40	70.5	55.5	80.5	59.5	43.0	-	393	402	372	182
39	70.0	54.5	80.0	58.5	42.0	-	383	391	362	177
38	69.5	54.0	79.5	57.5	41.0	-	373	380	352	171
37	69.0	53.0	79.0	56.5	39.5	-	363	370	342	166
36	68.5	52.5	78.5	56.0	38.5	-	353	360	332	162
35	68.0	51.5	78.0	55.0	37.0	-	343	351	322	157
34	67.5	50.5	77.0	54.0	36.0	-	334	342	313	153
33	67.0	50.0	76.5	53.0	35.0	-	325	334	305	148
32	66.5	49.0	76.0	52.0	33.5	-	317	326	297	144
31	66.0	48.5	75.5	51.5	32.5	-	309	318	290	140
30	65.5	47.5	75.0	50.5	31.5	92.0	301	311	283	136
29	65.0	47.0	74.5	49.5	30.0	91.0	293	304	276	132
28	64.5	46.0	74.0	48.5	29.0	90.0	285	297	270	129
27	64.0	45.5	73.5	47.5	28.0	89.0	278	290	265	126
26	63.5	44.5	72.5	47.0	26.5	88.0	271	284	260	123
25	63.0	44.0	72.0	46.0	25.5	87.0	264	278	255	120
24	62.5	43.0	71.5	45.0	24.0	86.0	257	272	250	117
23	62.0	42.5	71.0	44.0	23.0	84.5	251	266	245	115
22	61.5	41.5	70.5	43.0	22.0	83.5	246	261	240	112
21	61.0	41.0	70.0	42.5	20.5	82.5	241	256	235	110
20	60.5	40.0	69.5	41.5	19.5	81.0	236	251	230	108

* Knoop Hardness Conversion -- The values of the Knoop hardness number are approximate only. Since they were determined on a limited number of tests and samples. These values are only for loads of 500 g or heavier.
NOTE: Although conversion tables dealing with hardness can only be approximate and never mathematically exact. It is of considerable value to be able to compare different hardness scales in a general way. Source: "Hardness Testing Handbook," by Vincent E. Lysaght and Anthony DeBellis, American Chain & Cable Co. and "Heat Treating Data Book," 7th Ed.. by Seco/Warwick Corp., Meadville, PA. 1986.