

Inesite, a hydrated calcium manganese silicate with five-tetrahedral-repeat double chains

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Abstract

Inesite, $\text{Ca}_2\text{Mn}_7\text{Si}_{10}\text{O}_{28}(\text{OH})_2 \cdot 5\text{H}_2\text{O}$, from the Hale Creek Mine, Trinity County, California, is triclinic, space group PT , with cell dimensions $a = 8.889(2)$, $b = 9.247(2)$, $c = 11.975(3)\text{\AA}$; $\alpha = 88.15(2)$, $\beta = 132.07(2)$ and $\gamma = 96.64(2)^\circ$; $Z = 1$. The crystal structure has been determined through a combination of the three-dimensional Patterson and the symbolic addition methods. The structure has been refined by the method of least squares to an R factor of 0.032 for 4243 reflections.

The crystal structure of inesite consists of two components: (a) a polyhedral band, consisting of a sequence of seven edge-sharing Mn octahedra and two Ca pentagonal bipyramids, connected to two similar sequences on either side by edge-sharing; and (b) double silicate chains with a five-tetrahedral-repeat period, which contain alternating six- and eight-membered rings. These silicate double chains knit the adjacent Ca, Mn polyhedral bands into a three-dimensional framework. The average Ca-O distance is 2.431\AA. The average Mn-O distances within the four different Mn octahedra are 2.243, 2.217, 2.218 and 2.210\AA. The three crystallographically independent water molecules serve as apical ligands to the Ca and Mn atoms. The site of one of the water molecules is statistically occupied half the time, accounting for five water molecules in the unit cell. All seven hydrogen atoms are involved in hydrogen bonding. The recipient of a hydrogen bond is either a water molecule or a bridging oxygen atom bonded to two silicon only. The average Si-O bond lengths within the five different Si tetrahedra are 1.621, 1.626, 1.623, 1.627 and 1.630\AA. The Si-O-Si angles range from 130.0° to 143.5° , the smaller Si-O-Si angles being associated with longer Si-O bonds and *vice versa*. The six- and eight-membered silicate rings are nearly planar.

The oriented thermal transformation of inesite to a high-calcium rhodonite at $\sim 800^\circ\text{C}$ involves considerable cation migration and breakage of Si-O bonds and is far from a simple dehydration reaction, as has been postulated.

Introduction

Single silicate chains with two-, three-, four-, five-, six-, seven-, nine-, and twelve-tetrahedral repeat are known (Liebau, 1972). These single chains can polymerize further to form double chains. A common example is the polymerization of pyroxene-type (two-tetrahedral repeat) chains into amphibole-type double chains. Likewise, wollastonite-type (three-tetrahedral repeat) single chains can polymerize into xonotlite-type double chains. However, silicate double chains with periodicities of five and seven tetrahedra have not been reported. The crystal structure of inesite provides the first example of double silicate chains with a periodicity of five tetrahedra (*Fünfer-Doppelketten*) (Wan and Ghose, 1975).

Previous work

Inesite, a hydrated calcium manganese silicate, is triclinic, crystal class T . From chemical analysis of inesite from Quinault, Washington, Glass and Schaller (1939) suggested the chemical formula $3\text{CaO} \cdot 11\text{MnO} \cdot 15\text{SiO}_2 \cdot 10\text{H}_2\text{O}$. Richmond (1942) determined the correct chemical composition as $\text{Ca}_2\text{Mn}_7\text{Si}_{10}\text{O}_{28}(\text{OH})_2 \cdot 5\text{H}_2\text{O}$, and assigned inesite to the rhodonite group of pyroxenoids on the basis of its cleavage characteristics and unit-cell dimensions. The similarity of the c cell dimensions ($\sim 12.20\text{\AA}$) between rhodonite and inesite led Liebau (1956) to postulate the presence of a silicate chain with five-tetrahedral repeat in inesite by analogy with rhodonite; Liebau further speculated that since inesite is hydrated (*cf.*

ATOM	X	Y	Z	POPP	MULT	POSIT	U	U11	U22	U33	U12	U13	U23
CA	.3882	.2615	.1016	1.0000	1.0000	GENL	.0205	.0120	.0075	.0042	.0073	.0007	
MN	0.0000	0.0000	0.0000	1.0000	.5000	SPFC	.0111	.0139	.0084	.0013	.0066	.0007	
MN	.0998	.0767	.7740	1.0000	1.0000	GENL	.0093	.0096	.0083	.0016	.0066	.0003	
MN	.2053	.1127	.5585	1.0000	1.0000	GENL	.0086	.0124	.0086	.0008	.0065	.0001	
MN	.3076	.1597	.3387	1.0000	1.0000	GENL	.0087	.0214	.0085	.0000	.0066	.0003	
SI	.2122	.7552	.5570	1.0000	1.0000	GENL	.0083	.0090	.0081	.0012	.0066	.0005	
SI	.0174	.6012	.2643	1.0000	1.0000	GENL	.0109	.0080	.0087	.0004	.0079	.0004	
SI	.4041	.8878	.0811	1.0000	1.0000	GENL	.0069	.0097	.0060	.0014	.0049	.0005	
SI	.3175	.8142	.2813	1.0000	1.0000	GENL	.0069	.0103	.0071	.0011	.0052	.0012	
SI	.1327	.7274	.7731	1.0000	1.0000	GENL	.0076	.0077	.0065	.0009	.0056	.0004	
SI	.6530	.2168	.0561	1.0000	1.0000	GENL	.0092	.0124	.0078	.0018	.0055	.0006	
SI	.9568	.4283	.2119	1.0000	1.0000	GENL	.0204	.0074	.0071	.0014	.0156	.0009	
SI	.0265	.1558	.3067	1.0000	1.0000	GENL	.0084	.0107	.0106	.0028	.0069	.0018	
SI	.7920	.3069	.3140	1.0000	1.0000	GENL	.0154	.0153	.0099	.0052	.0107	.0032	
SI	.9267	.1140	.5295	1.0000	1.0000	GENL	.0102	.0110	.0103	.0020	.0076	.0017	
SI	.8968	.3866	.5653	1.0000	1.0000	GENL	.0221	.0113	.0114	.0008	.0076	.0017	
SI	.5515	.2071	.3509	1.0000	1.0000	GENL	.0112	.0229	.0189	.0017	.0111	.0035	
SI	.1636	.3038	.8471	1.0000	1.0000	GENL	.0116	.0127	.0144	.0036	.0079	.0029	
SI	.7826	.3452	.7148	1.0000	1.0000	GENL	.0135	.0108	.0192	.0007	.0133	.0029	
SI	.8280	.0630	.7639	1.0000	1.0000	GENL	.0098	.0126	.0127	.0007	.0080	.0011	
SI	.10	.2144	.8542	1.0000	1.0000	GENL	.0129	.0147	.0117	.0027	.0079	.0008	
SI	.11	.1449	.5644	1.0000	1.0000	GENL	.0129	.0228	.0089	.0005	.0103	.0008	
SI	.4512	.1449	.8542	1.0000	1.0000	GENL	.0075	.0127	.0105	.0043	.0081	.0019	
SI	.2728	.0237	.0080	1.0000	1.0000	GENL	.0123	.0127	.0105	.0043	.0081	.0019	
SI	.3535	.0736	.7880	1.0000	1.0000	GENL	.0071	.0167	.0092	.0015	.0058	.0007	
SI	.1332	.2161	.1074	1.0000	1.0000	GENL	.0133	.0157	.0137	.0043	.0098	.0021	
SI	.2640	.3600	.5957	1.0000	1.0000	GENL	.0222	.0174	.0287	.0031	.0190	.0006	
SI	.5499	.4905	.8799	1.0000	1.0000	GENL	.1407	.0357	.0220	.0439	.0072	.0054	
SI	.4024	.4159	.4390	1.0000	1.0000	GENL	.0234	.0232	.0315	.0103	.0153	.0132	
SI	.2815	.3815	.0644	1.0000	1.0000	GENL	.0443	.0443	.0315	.0103	.0153	.0132	
SI	.1270	.3730	.5280	1.0000	1.0000	GENL	.0443	.0443	.0315	.0103	.0153	.0132	
SI	.3150	.3970	.6900	1.0000	1.0000	GENL	.0443	.0443	.0315	.0103	.0153	.0132	
SI	.6400	.4330	.9500	1.0000	1.0000	GENL	.0443	.0443	.0315	.0103	.0153	.0132	
SI	.4830	.4330	.7880	1.0000	1.0000	GENL	.0443	.0443	.0315	.0103	.0153	.0132	
SI	.5533	.4133	.5267	1.0000	1.0000	GENL	.0401	.0401	.0401	.0401	.0401	.0401	
SI	.3485	.4658	.3626	1.0000	1.0000	GENL	.0443	.0443	.0315	.0103	.0153	.0132	

***HYPER-PHYSICAL RECORD IN WHICH LOGIC/L RECORDS BEGIN

LOG HYPY	LOG HYPV	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY	LOG HYPY
1	1	2	1	3	1	4	1	5	1	6	1	7
12	5	13	5	14	5	15	6	16	430	17	430	18
23	430	24	430	25	430							

INTERCHANGED NFILEA = 9 NFILEB = 8.

*****STORE REQUIREMENTS IN WORDS*****

CURRENT PROGRAM	PREVIOUS PROGRAM	FC	LOADAT	ELAPSED TIME	DATE	REQUIRED SIZE	MAXIMUM SIZE OF DATA ARRAY	REQUIRED SIZE OF DATA ARRAY	MAXIMUM SIZE OF DATA ARRAY	SD	FAR	CURRENTLY AVAILABLE	LARGEST CORE USED	AMOUNT USED	SD	FAR

TIME ELAPSED TIME DATE
 .11 MIN .07 MIN 04/19/77

FC CARD INPUT

TEMPERATURE FACTOR TYPE	LIST REFLECTIONS	DISPERSION CORRECTION	REFLECTION SURVEY	PARTIAL CONTRIBUTION	DIFFRACTION TYPE	UPDATE SCALE FACTORS
MIXD	YES	YES	NO	NO	XRAY	NO

INPUT BINARY DATA FILE IS FOR INESIT. IT HAS BEEN UPDATED 2 TIMES.
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 THE PROGRAMS WHICH HAVE UPDATED AND/OR COPIED THIS FILE ARE..
 DATRDN LOADAT

ISOTROPIC EXTINCTION CORRECTION 0.

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0.000 .985 19 19 25

SCALE FACTORS
 1 .22970

INDIVIDUAL ATOM PARAMETERS *** THERMAL VALUES LISTED ARE MULTIPLIED BY 100***

ATOM	X	Y	Z	POP.	PAR.	MULT.	U DP	U11	U22	U33	U12	U13	U23
CA	0.388230	0.261540	0.101640	1.000000	1.000000	1.000	2.04931	1.20060	0.74540	0.41600	0.73450	0.06520	
MN	0.000000	0.000000	0.000000	1.000000	1.000000	0.500	1.10870	1.38901	0.83920	0.12930	0.66300	0.06940	
MN	0.099780	0.076650	0.774040	1.000000	1.000000	1.000	0.93150	0.95730	0.82930	0.15700	0.65700	0.06010	
MN	0.206330	0.112730	0.558630	1.000000	1.000000	1.000	0.86490	1.23540	0.85580	0.07510	0.64880	0.01060	
MN	0.307560	0.159730	0.338740	1.000000	1.000000	1.000	0.87390	2.18111	0.84680	0.00420	0.65600	0.03180	
SI	0.212190	0.755240	0.556990	1.000000	1.000000	1.000	0.82700	0.90220	0.81150	0.12170	0.66230	0.05310	

INDIVIDUAL ATOM PARAMETERS

*** THERMAL VALUES LISTED ARE MULTIPLIED BY 100***

ATOM	X	Y	Z	POP.	PAR.	MULT.	U OR U11	U22	U33	U12	U13	U23
SI 2	.017350	.601190	.254280	1.000000	1.000	1.000	1.08540	.80340	.86850	.03660	.78850	.03800
SI 3	.404050	.887780	.081090	1.000000	1.000	1.000	.69280	.96680	.59940	.13500	.49080	.04770
SI 4	.317480	.814190	.281340	1.000000	1.000	1.000	.69310	.02880	.71370	.10800	.52230	.12100
SI 5	.132710	.727380	.773090	1.000000	1.000	1.000	.75860	.76510	.65160	.08510	.55540	.03660
C 1	.652980	.216750	.056050	1.000000	1.000	1.000	.92320	1.24170	.77620	.18170	.55410	-.06000
C 2	.956830	.428250	.211900	1.000000	1.000	1.000	2.03611	.74000	1.56681	.14250	1.56411	-.08590
C 3	.026520	.155790	.309700	1.000000	1.000	1.000	.84030	1.07140	1.06230	-.14250	1.56411	-.08590
C 4	.792040	.306860	.313980	1.000000	1.000	1.000	.84030	1.07140	1.06230	.27790	.69430	.18210
C 5	.926730	.114010	.529540	1.000000	1.000	1.000	1.53691	1.52571	.98630	.51700	.69430	.18210
C 6	.926730	.114010	.529540	1.000000	1.000	1.000	1.02380	1.10150	1.02780	.19550	.76080	.16890
C 7	.998830	.386550	.565280	1.000000	1.000	1.000	2.20571	1.12910	1.14280	.08370	1.27581	-.02880
C 8	.951500	.207090	.350870	1.000000	1.000	1.000	1.11800	2.28531	1.88751	.17190	1.11280	.35070
C 9	.163600	.303830	.847110	1.000000	1.000	1.000	1.16160	1.27341	1.43751	.36340	.78870	.06220
C 10	.782620	.345180	.714790	1.000000	1.000	1.000	1.35331	1.07990	1.92251	.06510	1.33361	.06220
C 11	.828020	.062990	.763920	1.000000	1.000	1.000	.98090	1.25510	1.20780	.27380	.80000	.11280
C 12	.683960	.214440	.854170	1.000000	1.000	1.000	1.28701	1.46591	1.17020	-.04840	.80000	.11280
C 13	.451190	.144880	.564390	1.000000	1.000	1.000	.75480	.27591	.88640	.02570	1.03030	.07900
C 14	.272780	.023650	.007990	1.000000	1.000	1.000	1.22990	1.26771	1.04820	.43090	.58110	.01280
C 15	.353460	.073550	.787980	1.000000	1.000	1.000	.71470	1.67451	.91670	.43090	.80530	.18770
C 16	.133210	.216080	.107420	1.000000	1.000	1.000	1.32791	1.67291	1.37651	.14640	.57550	.06600
C 17	.264000	.359960	.595730	1.000000	1.000	1.000	2.21721	1.73891	2.86621	.43340	.98080	.20770
C 18	.549850	.490480	.979850	1.000000	1.000	1.000	4.07036	3.56531	2.20351	.31380	.99980	-.08380
C 19	.402400	.415850	.439900	.500000	1.000	1.000	2.33651	.31901	3.15421	4.39012	-.72210	-.54280
C 20	.025110	.281480	.064390	1.000000	1.000	1.000	4.43000	2.31901	3.15421	1.02500	1.53051	1.31771
C 21	.127000	.373000	.528000	1.000000	1.000	1.000	4.43000	2.31901	3.15421	1.02500	1.53051	1.31771
C 22	.315000	.397000	.690000	1.000000	1.000	1.000	4.43000	2.31901	3.15421	1.02500	1.53051	1.31771
C 23	.640000	.433000	.950000	1.000000	1.000	1.000	4.43000	2.31901	3.15421	1.02500	1.53051	1.31771
C 24	.483000	.433000	.788000	1.000000	1.000	1.000	4.43000	2.31901	3.15421	1.02500	1.53051	1.31771
C 25	.553330	.413250	.526670	1.000000	1.000	1.000	4.01000	2.31901	3.15421	1.02500	1.53051	1.31771
C 26	.348460	.465820	.362620	1.000000	1.000	1.000	4.43000	2.31901	3.15421	1.02500	1.53051	1.31771

H	K	L	GR2	FN	FC	A	B	SINTH/LW	DF	W*DF	ANGLE CALC	ANGLE STAT
0	0	1	1	19.93	19.97	-19.96	-1.69	.05636	-.98	-5.70	182	
0	0	2	1	41.95	44.07	-44.07	-.27	.11271	-2.11	-4.53	182	
0	0	3	1	3.39	.78	-.46	.63	.16907	2.60	5.48	191	
0	0	4	1	39.35	42.81	42.80	.91	.22543	-3.45	-10.51	125	
0	0	5	1	10.62	9.72	-9.70	.74	.28178	.96	4.16	175	
0	0	6	1	60.47	60.17	-60.17	-.57	.33814	.70	1.25	181	
0	0	7	1	14.23	14.72	14.72	-.32	.39449	-.50	-1.96	359	
0	0	8	1	14.85	15.75	-15.75	-.32	.45085	-.89	-3.20	182	
0	0	9	1	93.25	94.88	94.76	4.74	.50721	-1.63	-2.21	2	
0	0	10	1	15.03	14.32	-14.29	-.95	.56356	.74	2.35	184	
0	0	11	1	17.76	17.47	17.46	.55	.61992	.30	.91	1	
0	0	12	1	10.05	9.97	9.91	1.06	.67628	.10	.19	6	
0	0	13	1	14.79	15.07	15.03	1.16	.67514	-.28	-.72	4	
0	0	14	1	8.56	9.83	8.83	-.07	.61898	-.27	-.51	0	
0	0	15	1	27.51	28.19	28.19	-.49	.56286	-.27	-.51	0	
0	0	16	1	49.05	49.58	49.47	3.30	.50680	-.69	-2.63	3	
0	0	17	1	67.89	68.07	-58.06	-1.36	.45081	-.18	-1.40	0	
0	0	18	1	4.99	4.82	-4.81	.11	.39493	.18	.29	182	
0	0	19	1	35.13	34.88	34.88	.28	.33920	.25	.83	178	
0	0	20	1	28.10	28.59	-29.57	-.91	.28371	-.48	-2.10	182	
0	0	21	1	136.42	131.36	131.31	3.55	.22866	5.05	11.30	1	
0	0	22	1	60.14	58.79	58.79	1.05	.17444	1.34	3.38	1	
0	0	23	1	27.05	26.24	26.24	-.01	.12217	.82	3.09	0	
0	0	24	1	13.60	12.66	12.66	-.12	.07599	.94	6.21	0	
0	0	25	1	129.94	126.70	126.64	3.89	.05454	3.24	10.59	1	
0	0	26	1	6.43	8.12	8.08	-.81	.08079	-1.64	-9.55	355	
0	0	27	1	27.05	29.43	29.43	.21	.12818	-2.38	-8.87	0	
0	0	28	1	7.88	7.05	-7.05	-.10	.18080	.84	3.61	181	
0	0	29	1	32.58	30.86	30.86	-.91	.23515	1.72	5.00	132	
0	0	30	1	90.80	92.91	92.83	3.93	.29027	-2.11	-4.12	2	
0	0	31	1	16.11	16.71	-16.71	-.15	.34579	-.60	-2.74	181	
0	0	32	1	28.37	29.38	-29.37	-.30	.40154	-1.01	-3.78	181	
0	0	33	1	46.39	46.73	46.72	.90	.45744	-.35	-.84	1	
0	0	34	1	56.95	55.97	55.88	3.09	.51344	.98	1.83	3	
0	0	35	1	33.52	33.88	-33.87	-.81	.56951	-.35	-1.08	182	
0	0	36	1	3.02	.52	.50	.12	.62563	2.51	1.87	13	
0	0	37	1	6.84	5.58	5.58	.08	.67839	1.26	1.80	0	
0	0	38	1	18.66	17.35	17.35	.25	.67839	1.31	3.84	0	
0	0	39	1	11.23	11.12	-11.10	-.56	.62283	.12	.27	183	
0	0	40	1	3.02	1.84	1.78	-.49	.56743	1.17	.98	345	
0	0	41	1	19.55	19.56	19.54	.94	.51223	-.02	-.07	2	
0	0	42	1	59.32	60.51	60.50	1.08	.45732	-1.19	-2.41	1	
0	0	43	1	10.81	9.51	9.42	1.35	.40281	1.29	4.11	8	
0	0	44	1	13.19	12.14	12.12	.56	.34888	1.05	4.29	2	
0	0	45	1	14.81	15.89	-15.84	-1.27	.29586	-1.09	-5.32	185	
0	0	46	1	169.46	169.72	169.64	5.00	.24434	-.26	-.55	1	
0	0	47	1	6.00	6.43	-6.42	-.33	.19551	-.43	-1.44	183	
0	0	48	1	33.69	35.20	-35.20	-.51	.15198	-.94	-5.44	181	
0	0	49	1	3.18	4.12	4.12	-.11	.11967	-.94	-2.00	359	
0	0	50	1	73.53	72.70	-72.70	.19	.10908	.82	2.69	179	
0	0	51	1	51.76	54.24	54.22	1.30	.12580	-2.48	-7.29	1	
0	0	52	1	68.28	69.61	69.60	1.04	.16158	-1.33	-3.54	0	
0	0	53	1	3.82	.83	-.80	.21	.20674	2.99	6.38	164	
0	0	54	1	7.45	8.53	-8.50	-.75	.25637	-1.08	-3.60	186	
0	0	55	1	161.15	162.95	162.86	5.36	.30832	-1.80	-3.44	1	
0	0	56	1	12.14	11.03	11.02	-.35	.36160	1.11	4.15	359	

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Y	X	L	GRP	FQ	FC	A	R	SINTH/LW	DF	W*DF	ANGLE CALC	ANGLE STAT
0	2	7	1	9.45	9.53	-9.53	-15	.41569	-.08	-.22	181	
0	2	6	1	8.06	7.51	-7.50	.36	.47030	.55	1.25	177	
0	2	0	1	19.10	18.61	-18.60	-.19	.52529	.50	1.81	181	
0	2	10	1	21.64	21.27	21.34	1.15	.58054	.26	.92	3	
0	2	11	1	6.21	5.43	5.43	.04	.63599	.89	1.27	0	
0	2	12	1	3.75	4.85	-4.84	-.28	.69158	-1.10	-.85	184	
0	2	12	1	5.46	6.03	-6.01	-.49	.68598	-.57	-.66	185	
0	2	11	1	9.55	7.56	7.55	.52	.63139	1.99	4.07	3	
0	2	10	1	2.64	2.52	2.50	.34	.57713	.12	.08	7	
0	2	9	1	9.10	2.62	2.57	-.51	.52332	2.47	3.69	349	
0	2	8	1	102.82	103.67	103.60	3.73	.47011	-.85	-1.23	2	
0	2	7	1	48.19	48.65	48.62	1.55	.41772	-.46	-1.19	1	
0	2	6	1	10.29	10.31	10.31	-.04	.36652	-.02	-.06	0	
0	2	5	1	55.04	56.51	-56.49	-1.49	.31706	-1.47	-3.75	182	
0	2	4	1	94.23	97.24	97.18	3.35	.27032	-3.01	-6.07	1	
0	2	3	1	46.83	46.71	-46.70	-.93	.22796	.12	.25	182	
0	2	2	1	6.30	4.92	-4.91	.20	.19292	1.38	5.02	177	
0	2	1	1	83.61	83.64	-83.64	-.15	.16976	-.03	-.08	181	
0	2	0	1	50.43	49.91	-49.90	-1.22	.16362	.52	1.35	182	
0	2	1	1	191.79	196.58	196.52	4.63	.17628	-4.79	-12.42	1	
0	2	2	1	5.49	7.12	7.05	.95	.20429	-1.63	-4.85	7	
0	2	3	1	35.44	35.20	35.20	-.08	.24237	3.24	9.35	0	
0	2	4	1	16.52	15.52	15.52	-.31	.28654	1.00	5.17	359	
0	2	5	1	159.79	164.87	164.83	3.74	.33439	-5.08	-9.22	1	
0	2	6	1	12.99	13.17	-13.16	-.62	.38455	-.18	-.65	183	
0	2	7	1	18.42	17.67	-17.67	-.15	.43823	.74	2.99	181	
0	2	8	1	24.40	24.07	-24.07	-.17	.48895	.33	1.40	181	
0	2	9	1	13.97	14.41	-14.37	-1.02	.54239	-.44	-1.31	185	
0	2	10	1	53.04	52.26	-52.14	3.59	.59638	.78	1.60	3	
0	2	11	1	19.62	18.96	-18.96	-.24	.65076	.65	1.96	181	
0	2	12	1	8.67	9.29	9.26	.77	.69777	-.63	-1.06	4	
0	2	11	1	14.48	14.78	14.69	1.68	.64446	-.30	-.80	6	
0	2	10	1	2.26	1.75	1.64	.59	.59173	.51	.32	19	
0	2	9	1	9.88	10.42	10.34	-1.31	.53973	-.54	-1.34	353	
0	2	8	1	92.20	94.31	94.22	4.01	.48869	-2.10	-2.96	2	
0	2	7	1	12.82	12.40	-12.40	-.10	.43895	.42	1.38	181	
0	2	6	1	18.39	17.72	-17.71	-.53	.39102	.67	2.90	182	
0	2	5	1	7.35	8.57	8.55	-.30	.34564	-.12	-3.37	359	
0	2	4	1	8.26	9.28	9.25	.73	.30395	-1.21	-3.37	4	
0	2	3	1	6.36	7.59	-7.54	.86	.26769	-1.02	-3.43	4	
0	2	2	1	34.21	35.04	35.00	1.66	.23934	-1.24	-3.61	173	
0	2	1	1	54.01	51.97	-40.72	.67	.22195	2.03	4.54	0	
0	2	0	1	36.99	40.75	40.72	-1.46	.21816	-3.76	-11.53	182	
0	2	1	1	181.49	183.61	183.56	4.66	.22863	-2.12	-4.79	1	
0	2	2	1	18.89	17.48	17.48	-.13	.25161	1.40	7.10	0	
0	2	3	1	4.67	2.91	-2.90	-.27	.28406	1.76	3.78	186	
0	2	4	1	33.05	34.16	-34.16	-.28	.32316	-1.11	-3.79	181	
0	2	5	1	21.71	8.70	8.70	.21	.36677	13.01	57.79	1	
0	2	6	1	60.55	62.98	62.96	1.60	.41347	-2.43	-5.29	1	
0	2	7	1	19.83	19.74	19.72	.98	.46234	.09	.34	2	
0	2	8	1	7.61	6.98	-6.98	-.09	.51274	.63	1.30	181	
0	2	9	1	12.19	13.26	13.26	-.45	.56427	-1.07	-2.87	359	
0	2	10	1	54.60	53.75	53.59	4.21	.61664	.85	1.95	4	
0	2	11	1	15.78	15.33	-15.32	-.55	.66966	.45	1.18	183	
0	2	12	1	28.65	29.18	29.14	1.55	.66179	-.53	-1.81	3	
0	2	11	1	9.41	10.93	-10.93	-.14	.61086	-1.52	-3.12	181	

H	K	L	GRP	FO	FC	A	B	SIN/H/L/M	DF	W*DF	ANGLE CALC	ANGLE STAT
0	5	-9	1	50.63	52.01	-51.96	-2.24	.56097	-1.33	-3.65	183	
0	5	-6	1	34.776	35.22	35.13	2.45	.51242	-.46	-1.75	183	
0	5	-7	1	23.77	24.97	24.97	.00	.46564	-1.20	-5.06	0	
0	5	-6	1	6.23	5.29	-5.25	.69	.42120	.94	1.94	172	
0	5	-5	1	55.24	56.64	56.64	.64	.37994	-1.40	-3.21	0	
0	5	-4	1	19.45	20.21	-20.19	-.90	.34301	-.73	-3.58	183	
0	5	-3	1	143.20	148.69	148.69	4.00	.31192	-5.50	-10.32	1	
0	5	-2	1	18.11	17.12	17.08	1.26	.28842	.99	5.36	4	
0	5	-1	1	19.26	17.05	17.05	-.04	.27506	2.21	11.07	0	
0	5	0	1	13.54	13.58	-13.51	-1.35	.27270	-.04	-.19	186	
0	5	1	1	6.42	8.39	8.07	2.31	.28182	-1.97	-5.49	15	
0	5	2	1	7.99	7.49	-7.46	-.64	.30138	.40	1.26	185	
0	5	3	1	4.54	1.40	1.31	.50	.32953	3.14	5.72	20	
0	5	4	1	35.04	37.76	37.76	.58	.36429	-2.72	-8.53	0	
0	5	5	1	56.93	57.97	-57.95	-1.54	.40395	-1.04	-2.29	182	
0	5	6	1	77.03	77.60	77.49	4.09	.44720	-.57	-.85	3	
0	5	7	1	53.10	52.67	52.65	1.26	.49311	.43	1.02	1	
0	5	8	1	14.49	14.09	14.09	.13	.54100	.40	1.22	0	
0	5	9	1	14.93	14.68	-14.67	-.54	.59039	.25	.73	183	
0	5	10	1	17.48	16.31	15.19	2.02	.64092	1.17	3.42	7	
0	5	11	1	12.33	11.60	11.60	-.06	.69236	.74	1.61	0	
0	6	-11	1	7.81	9.74	-9.74	.05	.68304	-1.93	-3.09	179	
0	6	-10	1	2.37	.49	.49	-.03	.63412	1.88	1.11	358	
0	6	-9	1	34.05	35.25	-35.24	-1.02	.58653	-1.21	-4.77	182	
0	6	-8	1	3.60	2.82	2.74	.67	.54063	.78	.84	166	
0	6	-7	1	58.85	60.61	60.59	1.52	.49689	-1.74	-4.13	1	
0	6	-6	1	73.07	75.42	75.38	2.39	.45593	-2.35	-4.85	1	
0	6	-5	1	10.63	11.63	-11.61	.67	.41856	-.95	-2.92	176	
0	6	-4	1	41.30	42.76	-42.70	-2.10	.38583	-1.46	-4.53	183	
0	6	-3	1	168.64	174.40	174.35	4.43	.35902	-5.76	-9.95	1	
0	6	-2	1	15.77	16.71	16.71	.04	.33952	-.94	-4.31	0	
0	6	-1	1	46.08	45.70	-45.70	-.55	.32863	.38	.93	181	
0	6	0	1	47.21	48.09	-48.08	-.88	.32723	-.88	-2.20	182	
0	6	1	1	35.60	37.53	37.52	.53	.33543	-1.93	-5.60	0	
0	6	2	1	7.20	8.12	7.99	1.46	.35257	-.92	-2.34	10	
0	6	3	1	10.47	10.97	10.88	1.45	.37741	-.51	-1.63	7	
0	6	4	1	10.90	13.16	-13.16	.43	.40857	-2.27	-6.85	178	
0	6	5	1	26.70	27.41	-27.37	-1.39	.44472	-.70	-2.57	183	
0	6	6	1	93.86	92.79	92.69	4.33	.48473	1.08	1.52	2	
0	6	7	1	6.45	7.87	7.87	-.19	.52774	-1.42	-2.31	359	
0	6	8	1	10.34	10.13	10.13	-.13	.57307	.22	.51	0	
0	6	9	1	23.70	23.52	-23.52	-.34	.62021	.18	.60	181	
0	6	10	1	18.71	18.38	18.38	.05	.66878	.33	.92	0	
0	6	-10	1	8.72	8.90	8.84	1.02	.66107	-.18	-.33	6	
0	7	-9	1	21.81	21.73	21.71	.96	.61587	.08	.26	2	
0	7	-8	1	19.18	19.33	-19.30	-.91	.57266	-.15	-.50	183	
0	7	-7	1	33.89	34.19	34.11	2.39	.53192	-.30	-1.18	4	
0	7	-6	1	31.33	32.75	32.71	1.50	.49425	-1.42	-5.93	2	
0	7	-5	1	4.65	4.02	4.02	-.02	.46041	.63	.97	0	
0	7	-4	1	2.44	1.86	1.86	-1.81	.43131	.59	.49	257	
0	7	-3	1	44.47	41.67	41.61	2.21	.40796	2.80	7.35	3	
0	7	-2	1	9.60	9.10	-9.10	-.06	.39139	.50	1.50	181	
0	7	-1	1	10.99	11.58	11.53	1.02	.38248	-.59	-2.03	5	
0	7	0	1	11.05	11.85	11.82	.84	.38177	-.80	-2.65	4	
0	7	1	1	16.44	16.54	-16.50	-1.07	.38931	-.10	-.42	184	
0	7	2	1	62.47	62.40	62.31	3.38	.40463	.07	.11	3	

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H	K	L	GRP	FJ	FC	A	B	SINHL/W	DF	W*DF	ANGLE CALC	ANGLE STAT
0	7	3	1	14.27	14.12	14.07	1.20	.42689	.16	.55	183	4
0	7	4	1	5.62	4.90	-4.89	-1.20	.45509	.72	1.21	183	4
0	7	5	1	15.93	15.78	-15.73	-1.25	.48818	.15	.51	195	4
0	7	6	1	21.09	20.95	20.87	1.78	.52526	.14	.53	182	4
0	7	7	1	10.04	10.43	-10.43	-1.20	.56592	-1.40	-1.92	182	5
0	7	8	1	7.16	5.98	5.96	.57	.60835	1.17	1.95	182	5
0	7	9	1	16.55	16.01	16.00	.44	.65324	.54	1.47	182	5
0	7	10	1	3.73	3.01	2.89	-.87	.69979	.78	.63	344	5
0	8	-10	1	26.23	26.69	26.62	1.89	.69128	-.46	-1.50	4	4
0	8	-9	1	16.73	17.49	17.47	1.00	.64848	-.75	-2.17	3	3
0	8	-8	1	50.13	50.48	-50.41	-2.57	.60791	-.35	-.99	184	3
0	8	-7	1	31.30	32.35	32.26	2.35	.57002	-1.04	-4.17	4	4
0	8	-6	1	13.94	13.75	-13.75	.14	.53539	.19	.58	179	4
0	8	-5	1	3.17	2.83	-2.82	.13	.50469	.34	.34	177	4
0	8	-4	1	18.72	18.04	-18.03	-.56	.47869	.67	2.63	182	4
0	8	-3	1	10.03	10.08	-10.07	.40	.45817	.00	.01	177	4
0	8	-2	1	81.76	81.28	81.25	1.92	.44390	.48	.71	1	1
0	8	-1	1	45.39	43.52	43.47	2.13	.43650	1.87	4.76	183	2
0	8	0	1	32.35	31.59	31.58	1.07	.43631	.76	2.54	1	1
0	8	1	1	52.85	55.99	-55.95	-2.19	.44335	-3.14	-6.36	183	2
0	8	2	1	79.74	81.27	81.20	3.36	.45727	-1.53	-2.21	182	2
0	8	3	1	6.85	8.24	-8.24	-.20	.47748	-1.39	-2.63	182	2
0	8	4	1	11.73	10.97	-10.97	-.19	.50322	.75	2.13	184	2
0	8	5	1	5.48	5.60	-5.58	-.39	.53369	-.12	-.18	184	2
0	8	6	1	30.39	30.49	-30.48	-.40	.56813	-.10	-.34	191	4
0	8	7	1	22.13	22.33	22.28	1.56	.60586	-.20	-.67	4	4
0	8	8	1	27.24	26.47	26.42	1.55	.64631	.77	2.62	3	3
0	8	9	1	30.65	30.64	30.63	.84	.68900	.01	.03	1	1
0	8	10	1	2.58	2.07	2.06	.28	.68389	.51	.30	7	7
0	9	-9	1	31.98	33.02	-32.95	-2.23	.64584	-1.04	-3.76	184	8
0	9	-8	1	7.76	8.00	7.84	1.57	.61062	-.23	-.43	11	11
0	9	-7	1	2.68	1.26	1.25	.19	.57875	1.42	1.09	8	8
0	9	-6	1	25.75	25.88	25.83	1.61	.55082	-.13	-.51	3	3
0	9	-5	1	10.44	9.93	-9.91	.74	.52745	.51	1.43	175	3
0	9	-4	1	31.03	30.86	-30.83	-1.33	.50927	.18	.65	183	2
0	9	-3	1	84.89	82.35	82.30	2.88	.49686	2.55	3.52	2	2
0	9	-2	1	46.81	48.85	48.85	1.59	.49064	-.07	-.16	1	1
0	9	-1	1	7.18	6.57	-6.57	-.05	.49085	.61	1.23	181	1
0	9	0	1	37.51	38.29	-38.23	-2.12	.49749	-.78	-2.26	184	2
0	9	1	1	52.19	53.13	53.08	2.10	.51031	-.95	-2.17	2	2
0	9	2	1	12.20	12.53	12.53	.22	.52885	-.33	-.93	1	1
0	9	3	1	6.17	3.62	-3.52	.85	.55254	2.55	4.14	166	4
0	9	4	1	11.44	10.47	-10.46	.47	.58075	.97	2.39	177	4
0	9	5	1	8.79	8.70	8.65	-.93	.61286	.09	.18	354	5
0	9	6	1	32.03	31.57	31.44	2.91	.64828	.45	1.61	171	5
0	9	7	1	6.42	4.57	-4.52	.70	.68651	1.85	2.38	171	5
0	9	8	1	17.23	17.31	17.31	.09	.68601	-.07	-.21	0	0
0	10	-8	1	11.88	12.33	12.31	.63	.65325	-.44	-1.09	2	2
0	10	-7	1	12.40	13.00	12.97	.89	.62387	-.60	-1.56	3	3
0	10	-6	1	14.27	14.72	14.62	1.70	.59836	-.45	-1.30	6	6
0	10	-5	1	13.15	12.29	12.25	1.04	.57725	.86	2.47	4	4
0	10	-4	1	32.49	32.34	-32.25	-2.42	.56102	.15	.56	185	4
0	10	-3	1	5.27	6.58	6.32	1.84	.55012	-1.31	-1.84	16	16
0	10	-2	1	21.77	21.36	21.36	.31	.54485	.41	1.50	0	0
0	10	-1	1	18.62	18.20	18.19	.48	.54539	.42	1.48	1	1
0	10	0	1	2.30	5.00	5.00	-.15	.55172	-2.70	-1.64	359	359

F	K	L	GRP	FD	FC	A	B	SINHL/W	DF	WADF	ANGLE CALC	ANGLE STAT
0	0	10	1	6.53	5.53	5.53	.14	.56363	.99	1.64	1	
0	0	10	2	28.79	30.01	29.96	1.72	.59080	-1.22	-4.39	3	
0	0	10	3	26.60	26.60	26.53	1.86	.50276	.00	.01	4	
0	0	10	4	7.15	9.96	-8.94	.61	.62902	-1.80	-2.69	3	
0	0	10	5	21.33	20.57	-20.49	-1.84	.65907	.82	2.43	5	
0	0	10	6	23.66	22.79	22.68	2.30	.59240	.87	2.59	5	
0	0	10	7	21.82	21.84	-21.80	-1.28	.59754	-.01	-.04	2	
0	0	10	8	29.57	29.05	29.01	1.49	.67038	.53	1.82	2	
0	0	10	9	4.27	1.33	1.07	.79	.64701	2.94	3.11	36	
0	0	10	10	16.41	16.27	16.26	.46	.62783	.14	.42	1	
0	0	10	11	15.44	19.82	19.75	1.60	.61325	1.00	2.98	184	
0	0	10	12	39.30	38.30	-38.25	-2.09	.60361	-1.17	-.11	26	
0	0	10	13	2.57	2.74	2.45	1.23	.59913	1.99	4.01	177	
0	0	10	14	8.41	6.42	-6.41	.31	.59993	-.99	-3.11	4	
0	0	10	15	18.83	19.82	19.75	1.60	.59993	-.99	-3.11	4	
0	0	10	16	30.44	30.26	30.24	1.30	.60600	.18	.60	2	
0	0	10	17	21.10	21.29	-21.24	-1.45	.61717	-.19	-.61	184	
0	0	10	18	43.30	43.07	43.01	2.32	.63318	.23	.60	3	
0	0	10	19	11.99	11.75	11.71	1.05	.65367	.23	.52	5	
0	0	10	20	15.79	15.18	15.18	.38	.67824	.61	1.52	1	
0	0	10	21	8.68	9.03	9.01	.46	.69653	-.34	-.63	2	
0	0	10	22	3.32	.83	-.10	.83	.67903	2.49	1.96	96	
0	0	10	23	16.86	16.42	-16.42	-.31	.66586	.44	1.21	182	
0	0	10	24	8.40	7.44	7.44	.28	.55727	.96	1.65	2	
0	0	10	25	14.35	13.69	13.65	1.09	.65344	.67	1.70	4	
0	0	10	26	21.51	21.49	21.42	.73	.65447	.02	.07	4	
0	0	10	27	5.95	5.99	-5.95	.69	.66032	-.03	-.03	4	
0	0	10	28	43.71	43.43	-43.36	-2.34	.67087	.28	.72	173	
0	0	10	29	32.14	31.66	31.60	1.86	.68590	.48	1.63	3	
0	0	10	30	24.07	24.76	24.71	1.63	.70343	-.59	-2.13	3	
0	0	10	31	4.79	5.97	-5.96	.43	.70327	-1.19	-1.19	175	
0	0	10	32	20.56	22.02	21.97	1.45	.68357	-1.46	-4.29	3	
0	0	10	33	31.46	32.43	32.40	1.47	.66806	-.97	-3.32	0	
0	0	10	34	6.97	8.03	8.03	.07	.65703	-1.06	-1.61	2	
0	0	10	35	12.81	13.03	-13.03	-.08	.65071	-.22	-.54	181	
0	0	10	36	9.82	9.30	9.26	.88	.64924	.52	1.07	5	
0	0	10	37	15.87	16.16	16.15	.52	.65265	-.29	-.80	1	
0	0	10	38	32.55	32.40	32.36	1.67	.66086	.15	.53	2	
0	0	10	39	25.72	26.12	-26.00	-2.49	.67371	-.40	-1.33	186	
0	0	10	40	2.46	3.76	-3.69	.71	.69092	-1.29	-.73	186	
0	0	10	41	22.37	22.65	-22.59	-1.58	.67724	-1.29	-.73	169	
0	0	10	42	40.59	41.63	41.61	1.33	.65219	-.28	-.86	185	
0	0	10	43	23.47	24.43	24.38	1.54	.63120	-1.05	-3.33	185	
0	0	10	44	6.86	6.25	-6.23	.39	.61467	-.96	-3.23	3	
0	0	10	45	5.32	3.70	3.53	1.10	.61467	.61	1.02	176	
0	0	10	46	19.73	19.88	-19.81	-1.73	.60297	1.61	2.22	17	
0	0	10	47	6.23	6.08	-6.08	.13	.59639	-.16	-.52	185	
0	0	10	48	4.76	5.39	-5.35	.66	.59510	.16	.25	178	
0	0	10	49	49.86	50.50	50.46	2.05	.60838	-.62	-.79	172	
0	0	10	50	18.65	19.76	-19.69	-1.66	.62262	-.64	-1.64	2	
0	0	10	51	19.48	19.29	19.26	1.13	.64150	-1.11	-3.54	185	
0	0	10	52	33.20	34.62	34.57	1.89	.66464	.19	.61	3	
0	0	10	53	25.31	26.12	26.11	.86	.69161	-1.42	-5.00	3	
0	0	10	54	38.77	39.03	38.99	1.81	.69273	-.81	-2.60	3	
0	0	10	55	41.06	41.75	41.70	2.02	.65898	-.25	-.81	1	
0	0	10	56	12.75	12.34	-12.34	-.31	.62848	-.68	-2.04	2	
0	0	10	57	21.42	22.12	22.11	.22	.60172	.40	1.01	182	
0	0	10	58						-.69	-2.35	0	

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H	K	L	GRF	FD	FC	A	B	SINTH/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
1	-10	-4	1	11.00	11.95	11.94	.53	.57922	-.95	-2.37	163	
1	-10	-3	1	3.15	2.67	-2.67	-.03	.56150	.48	.44	5	
1	-10	-2	1	2.92	2.59	1.83	1.84	.54901	.33	.28	181	
1	-10	-1	1	30.67	32.53	-32.45	-2.34	.54213	1.86	-6.98	45	
1	-10	0	1	12.59	12.37	12.34	.81	.54105	.23	.65	185	
1	-10	1	1	15.42	14.45	14.36	1.66	.54583	.97	3.26	6	
1	-10	2	1	20.68	21.28	21.23	1.36	.55630	-.59	-2.18	3	
1	-10	3	1	2.15	2.47	2.45	.32	.57216	-.33	-.21	7	
1	-10	4	1	34.32	35.53	35.53	.41	.59297	-1.21	-4.59	3	
1	-10	5	1	3.14	.62	-.14	.60	.61824	2.51	2.23	0	
1	-10	6	1	4.95	2.91	2.88	.35	.64743	2.04	2.59	103	
1	-10	7	1	29.55	25.77	28.71	1.79	.68005	.78	2.66	6	
1	-9	-8	1	3.00	1.60	-1.53	.44	.68776	1.40	.91	3	
1	-9	-7	1	9.70	10.62	10.57	1.00	.64916	-.92	-1.86	5	
1	-9	-6	1	7.14	8.40	8.39	.43	.61332	-1.27	-2.12	2	
1	-9	-5	1	40.31	41.57	41.54	1.64	.58074	-1.26	-3.59	2	
1	-9	-4	1	35.82	37.10	-37.06	-1.69	.55201	-1.28	-4.06	183	
1	-9	-3	1	7.18	7.10	-7.10	-.14	.52776	.07	.15	182	
1	-9	-2	1	18.81	19.72	19.69	1.09	.50861	-.90	-3.36	3	
1	-9	-1	1	67.65	71.02	70.96	3.09	.49518	-3.37	-6.52	2	
1	-9	0	1	20.59	20.69	-20.64	-1.51	.48792	-.10	-.40	185	
1	-9	1	1	2.09	3.00	2.88	.84	.48711	-.91	-.61	16	
1	-9	2	1	28.82	28.57	28.52	1.63	.49279	.25	.94	3	
1	-9	3	1	10.67	10.02	-10.01	.27	.50474	-.35	-.95	178	
1	-9	4	1	36.61	37.52	37.48	1.72	.52253	-1.37	-4.59	2	
1	-9	5	1	34.61	36.11	-36.05	-2.03	.54558	-1.50	-4.80	184	
1	-9	6	1	3.25	.81	.81	.08	.57327	2.44	2.35	5	
1	-9	7	1	21.06	20.89	20.86	1.10	.60495	.18	.62	3	
1	-9	8	1	2.66	4.01	3.84	2.04	.64004	-.79	-2.77	3	
1	-9	9	1	28.20	28.00	-27.99	-.67	.69115	.20	.66	344	
1	-8	-10	1	17.05	17.09	-17.09	-.30	.64816	-.04	-.11	182	
1	-8	-9	1	8.36	9.29	-9.29	-.14	.60736	-.94	-1.72	181	
1	-8	-8	1	3.93	2.77	2.76	-.18	.56922	1.16	1.24	357	
1	-8	-7	1	47.13	49.31	49.21	3.14	.53432	-2.18	-5.53	3	
1	-8	-6	1	46.83	48.97	-48.92	-2.04	.50332	-2.13	-5.62	183	
1	-8	-5	1	40.84	41.76	41.75	.93	.47698	-.92	-2.79	1	
1	-8	-4	1	58.98	61.48	61.44	2.12	.45612	-2.50	-5.11	1	
1	-8	-3	1	76.96	81.06	81.02	2.28	.44151	-4.16	-6.13	1	
1	-8	-2	1	15.36	16.42	-16.42	-.12	.43379	-1.06	-4.10	181	
1	-8	-1	1	7.75	8.70	8.70	-.14	.43332	-.95	-2.30	0	
1	-8	0	1	8.31	8.11	-8.11	.12	.44013	.20	.54	179	
1	-8	1	1	23.93	24.36	-24.35	-.22	.45388	-.43	-1.90	181	
1	-8	2	1	32.41	34.02	33.92	2.65	.47398	-1.61	-5.69	4	
1	-8	3	1	42.55	43.08	-43.00	-2.66	.49966	-.53	-1.58	184	
1	-8	4	1	19.69	20.59	20.58	.80	.53010	-.90	-3.40	2	
1	-8	5	1	40.76	41.10	41.05	2.01	.56455	-.34	-1.00	2	
1	-8	6	1	48.43	49.13	49.10	1.73	.60230	-.70	-1.81	2	
1	-8	7	1	5.36	6.07	6.06	.47	.64279	-.72	-.95	4	
1	-8	8	1	5.20	6.29	-6.29	-.16	.68552	-1.09	-1.27	182	
1	-8	9	1	14.36	14.38	-14.38	-.10	.70279	-.02	-.04	181	
1	-7	-10	1	4.58	1.23	.04	1.23	.65602	3.35	3.51	88	
1	-7	-9	1	10.76	11.19	-11.15	-.86	.61087	-.43	-.96	185	
1	-7	-8	1	22.99	22.63	-22.63	-.46	.56773	.35	1.28	182	
1	-7	-7	1	10.12	9.96	9.92	.85	.52708	.16	.42	4	
1	-7	-6	1	93.17	94.86	94.78	3.85	.48956	-1.69	-2.37	2	

FC	FC	A	B	SINTH/LW	DF	WADF	ANGLE CALC	ANGLE STAT
1	2.11	2.46	-2.15	-1.19	.45594	-.35	-.23	182
1	21.92	22.17	22.15	.80	.42713	-.25	-1.10	210
1	39.12	40.93	40.91	1.36	.40417	-1.82	-5.45	2
1	7.35	8.99	8.99	.19	.38810	-1.54	-4.12	1
1	3.62	4.51	4.19	1.66	.37978	-.89	-1.27	21
1	2.77	4.48	4.22	-1.52	.38797	-2.16	-1.84	341
1	31.19	33.36	33.36	-.05	.38797	-2.16	-7.92	0
1	17.92	18.53	18.50	1.11	.40398	-.61	-2.70	3
1	6.71	6.05	5.41	2.72	.42687	.65	1.52	26
1	9.50	9.30	-9.23	-1.18	.45563	.20	.56	188
1	40.96	41.75	41.74	1.21	.48921	-.79	-2.39	1
1	5.96	5.70	-5.57	1.19	.52669	.26	.45	167
1	17.10	17.35	-17.35	-.02	.56731	-.25	-.84	181
1	33.42	33.63	33.57	1.98	.61043	-.20	-.77	3
1	3.89	1.51	.13	-1.51	.55556	2.38	2.26	275
1	13.70	13.40	-13.40	-.23	.70232	.30	.70	181
1	16.92	19.63	-19.62	-.58	.67243	-.72	-2.05	182
1	77.26	77.06	76.96	3.81	.62369	.20	.33	2
1	5.44	6.34	-6.28	-.92	.57633	.09	.15	189
1	5.08	6.95	-6.95	.19	.53074	-1.87	-2.55	178
1	7.32	6.39	-6.30	1.06	.48741	.93	1.88	170
1	53.21	54.11	54.07	2.11	.44699	-.91	-1.85	2
1	34.31	36.78	36.78	-.20	.41035	-.91	-8.82	0
1	25.55	25.36	-25.35	-.58	.37858	.20	.81	182
1	13.96	14.63	-14.63	-.41	.35300	-.67	-2.84	239
1	2.71	2.20	-.11	-.17	.33504	1.50	2.89	1
1	135.97	144.01	143.94	4.45	.32595	-8.04	-14.77	1
1	61.46	64.88	-64.84	-2.13	.32648	-3.42	-6.13	182
1	9.54	10.15	-10.14	.50	.33658	-.61	-2.25	177
1	80.92	85.41	85.38	2.38	.35544	-4.49	-7.76	1
1	66.29	69.72	69.69	1.94	.38175	-3.43	-5.64	1
1	16.33	15.97	-15.97	.21	.41411	.36	1.50	179
1	45.03	46.86	-46.86	-.67	.45121	-1.84	-4.55	181
1	2.04	1.77	1.77	-.01	.49199	.27	.19	0
1	29.61	30.19	-30.19	-.34	.53559	-.58	-2.33	181
1	32.35	33.00	32.88	2.84	.58140	.66	-2.10	4
1	11.13	11.20	-11.01	-2.02	.62892	.07	-.16	191
1	27.44	26.24	26.23	.77	.67779	1.19	.00	1
1	12.87	13.37	13.36	.16	.69678	-.50	-1.11	0
1	33.97	34.37	34.36	.80	.64526	-.41	-1.45	1
1	80.73	81.05	80.95	4.08	.59461	-.33	-.56	2
1	30.36	30.59	-30.56	-1.40	.54508	-.23	-.83	183
1	32.34	33.53	33.52	.49	.49700	-.32	-4.20	0
1	12.92	13.24	13.23	.45	.45085	-.32	-1.07	1
1	9.65	50.35	-50.35	-.51	.40728	-.40	-.87	181
1	6.97	8.64	-8.44	1.84	.36721	1.02	3.25	167
1	4.18	6.68	-6.61	-.92	.33189	.29	.80	188
1	6.32	5.60	-4.51	-.29	.30301	-.25	-.65	184
1	167.37	174.42	174.36	.97	.28255	.72	2.14	10
1	23.55	25.25	-25.22	4.70	.27240	-.72	-14.41	1
1	27.33	28.30	-28.28	-1.20	.27372	-1.70	-7.47	183
1	23.97	24.26	24.24	.78	.28635	-.96	-3.91	1
1	17.96	19.04	19.04	1.00	.30891	-.29	-1.26	2
1	21.03	21.51	21.41	.07	.33941	-1.08	-5.48	0
1	59.21	60.70	-60.67	2.11	.37594	-.48	-2.33	5
1				-2.04	.41691	-1.49	-3.25	182

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	U	K	L	GRP	EJ	FC	A	B	SINHALM	DE	WDF	ANGLE CALC	ANGLE STAT
1	1	5	6	1	1.92	1.62	1.60	-.29	.44113	.35	.26	182	182
1	1	5	7	1	20.44	21.10	21.07	1.26	.50777	-.67	-2.55	351	351
1	1	5	8	1	30.75	30.89	30.75	2.95	.55621	-.14	-.53	3	3
1	1	5	9	1	16.54	15.75	-15.71	-1.18	.60602	.93	2.59	185	185
1	1	5	10	1	32.41	32.38	32.36	1.02	.65689	.03	.12	1	1
1	1	4	-12	1	2.50	.79	.79	-.05	.67474	1.71	.96	357	357
1	1	4	-11	1	35.04	35.70	35.69	.66	.62169	-.66	-2.47	1	1
1	1	4	-10	1	29.83	29.75	29.70	1.84	.56928	.08	.31	3	3
1	1	4	-9	1	12.35	12.59	-12.59	-.34	.51769	-.24	-.72	182	182
1	1	4	-8	1	3.23	3.49	3.49	.00	.46721	-.26	-.25	0	0
1	1	4	-7	1	13.85	14.40	-14.40	-.25	.41923	-.55	-1.00	181	181
1	1	4	-6	1	23.73	25.19	-25.18	-.64	.37136	-1.41	-6.09	182	182
1	1	4	-5	1	76.57	78.23	78.10	4.36	.32748	-1.66	-3.00	3	3
1	1	4	-4	1	35.16	35.60	-35.79	-1.03	.28798	-.64	-2.05	182	182
1	1	4	-3	1	1.62	1.94	-1.91	.30	.25490	-.31	-.27	170	170
1	1	4	-2	1	88.30	89.57	89.56	1.62	.23101	-1.27	-2.83	1	1
1	1	4	-1	1	63.43	62.73	62.70	1.73	.21934	.71	6.94	1	1
1	1	4	0	1	3.74	.71	.65	.27	.22183	3.03	6.94	22	22
1	1	4	1	1	21.70	23.64	23.64	-.09	.23803	-1.93	-9.05	0	0
1	1	4	2	1	23.37	22.10	-22.10	-.38	.26544	1.26	6.11	181	181
1	1	4	3	1	23.04	22.47	-22.47	-.37	.30102	.57	2.58	181	181
1	1	4	4	1	75.48	78.63	78.52	4.15	.34223	-3.15	-5.57	3	3
1	1	4	5	1	30.04	30.97	30.94	-1.44	.38727	-.93	-3.42	356	356
1	1	4	6	1	16.36	16.34	16.33	.55	.43496	.02	.10	1	1
1	1	4	7	1	37.93	38.59	38.54	1.90	.44851	-.66	-1.94	2	2
1	1	4	8	1	6.94	6.69	-6.60	1.09	.53241	.25	.49	170	170
1	1	4	9	1	2.40	2.64	2.57	.60	.58731	-.24	-.16	13	13
1	1	4	10	1	10.93	10.21	-10.21	-.36	.63996	.72	1.86	183	183
1	1	4	11	1	18.71	18.92	-18.91	-.39	.69319	-.20	-.57	182	182
1	1	3	-12	1	2.43	.41	-.37	-.17	.65650	2.02	1.16	205	205
1	1	3	-11	1	12.49	12.51	-12.51	.09	.60216	-.02	-.04	179	179
1	1	3	-10	1	20.18	20.13	-20.13	-.36	.54822	.05	.16	182	182
1	1	3	-9	1	69.50	69.72	69.67	2.69	.49483	-.22	-.42	2	2
1	1	3	-8	1	2.15	.34	-.32	.10	.44216	1.82	1.28	162	162
1	1	3	-7	1	17.85	17.12	17.12	-.02	.39054	.73	3.11	0	0
1	1	3	-6	1	11.97	12.69	-12.69	.30	.34041	-.72	-2.73	178	178
1	1	3	-5	1	42.57	41.57	41.50	4.85	.29256	.60	1.17	1	1
1	1	3	-4	1	172.17	171.57	171.50	4.85	.29256	.60	1.17	182	182
1	1	3	-3	1	42.73	41.91	-41.89	-1.18	.24831	.66	1.90	181	181
1	1	3	-2	1	18.73	19.61	-19.61	-.05	.20994	-.89	-4.44	179	179
1	1	3	-1	1	42.43	42.03	-42.03	.11	.18124	.45	1.10	181	181
1	1	3	0	1	69.38	69.06	-69.05	-.78	.16724	.32	.83	181	181
1	1	3	1	1	156.38	161.14	161.11	3.21	.17159	-.32	.83	181	181
1	1	3	2	1	15.93	17.28	-17.25	-1.05	.19305	-4.76	-12.57	1	1
1	1	3	3	1	21.86	19.63	19.63	-.28	.22682	-1.35	-8.54	184	184
1	1	3	4	1	54.85	55.33	55.31	1.26	.26828	2.23	10.79	0	0
1	1	3	5	1	123.32	127.67	127.59	4.62	.31442	-.48	-.97	1	1
1	1	3	6	1	30.67	31.89	-31.87	-1.00	.36344	-4.35	-8.16	2	2
1	1	3	7	1	3.14	2.22	2.19	.35	.41434	-1.21	-4.30	182	182
1	1	3	8	1	27.02	26.91	26.90	.84	.46649	.91	1.05	9	9
1	1	3	9	1	25.52	25.63	-25.63	-.61	.51952	.10	.42	1	1
1	1	3	10	1	13.44	13.46	13.27	2.26	.57319	-.12	-.47	182	182
1	1	3	11	1	45.24	44.46	-44.42	-1.76	.62733	.03	.08	9	9
1	1	3	12	1	2.42	.67	.64	-.20	.68183	.79	1.98	183	183
1	1	2	-13	1	19.97	20.29	-20.29	-.50	.69788	1.75	1.01	344	344
1	1	2	-12	1	21.33	20.73	-20.73	.22	.64239	-.32	-.93	182	182
1	1	2	-11	1	2.31	.21	-.20	-.03	.58706	.60	1.91	179	179
1	1	2	-10	1						2.10	1.27	189	189

H	K	L	GRP	FN	FC	A	R	STW/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
1	-2	-10	1	21.98	21.92	21.92	-0.29	.53195	.95	.20	0	
1	-2	-9	1	100.91	100.29	100.17	4.82	.477712	.62	.88	0	
1	-2	-8	1	34.32	35.56	-35.54	-0.44	.422271	-1.24	-4.32	2	
1	-2	-7	1	29.66	30.22	30.22	.17	.36887	-0.56	-2.08	0	
1	-2	-6	1	70.03	71.28	71.27	.90	.31592	-1.25	-2.29	0	
1	-2	-5	1	49.05	51.67	51.64	1.74	.26438	-2.62	-5.16	1	
1	-2	-4	1	19.16	19.91	-19.91	-0.41	.21526	-1.75	-8.63	0	
1	-2	-3	1	31.97	33.43	33.43	.19	.17067	-1.44	-4.97	0	
1	-2	-2	1	53.18	51.64	-51.64	-0.48	.13519	1.54	4.44	181	
1	-2	-1	1	65.63	63.54	-63.53	-0.66	.11735	2.10	6.56	181	
1	-2	0	1	130.44	131.05	130.95	5.15	.12499	-0.59	-1.85	2	
1	-2	1	1	13.69	15.28	-15.25	-0.89	.15435	-1.39	-8.50	184	
1	-2	2	1	10.31	10.33	10.33	.33	.19591	-0.02	-0.12	1	
1	-2	3	1	54.03	53.98	53.97	1.37	.24349	.05	.11	1	
1	-2	4	1	83.30	84.66	84.64	1.89	.29418	-1.27	-2.66	1	
1	-2	5	1	10.63	10.88	10.87	.51	.34663	-0.25	-0.95	2	
1	-2	6	1	36.34	35.73	-35.73	-0.46	.40015	.60	1.84	181	
1	-2	7	1	33.13	32.99	-32.98	-0.63	.45435	.14	.46	182	
1	-2	8	1	17.83	17.51	17.51	-0.05	.50902	.39	1.39	0	
1	-2	9	1	38.04	38.79	38.60	3.83	.56402	-0.75	-2.19	5	
1	-2	10	1	40.21	39.75	-39.71	-1.72	.61926	.46	1.37	183	
1	-2	11	1	13.78	12.96	12.95	.49	.67460	.83	2.03	2	
1	-2	12	1	37.25	36.73	36.66	2.27	.68688	.51	1.80	3	
1	-2	13	1	17.01	18.79	18.76	1.05	.63267	1.05	3.34	3	
1	-2	14	1	17.84	16.50	-16.50	-0.23	.57674	.51	1.62	181	
1	-2	15	1	4.25	1.81	-1.77	-0.37	.52090	2.44	3.09	192	
1	-2	16	1	92.08	92.55	92.46	4.23	.46518	-0.47	-0.68	2	
1	-2	17	1	20.14	19.53	-19.52	-0.62	.24524	.26	.72	0	
1	-2	18	1	43.66	43.38	43.38	.41	.29946	.50	2.11	182	
1	-2	19	1	20.14	19.53	-19.52	-0.62	.24524	.60	3.02	182	
1	-2	20	1	32.26	32.89	32.76	2.95	.19225	-0.64	-2.03	5	
1	-2	21	1	3.81	4.58	-4.59	.23	.14189	-0.77	-1.78	177	
1	-2	22	1	51.97	47.42	47.42	.06	.09826	4.45	15.03	0	
1	-2	23	1	33.24	29.82	29.82	.48	.07435	3.42	13.04	0	
1	-2	24	1	20.81	18.62	18.19	4.00	.08806	2.19	9.81	12	
1	-2	25	1	10.81	11.79	-11.75	-0.97	.12780	-0.98	-5.77	185	
1	-2	26	1	56.46	56.08	56.08	.35	.17682	.38	.95	0	
1	-2	27	1	24.30	22.06	-22.06	.24	.22923	2.24	8.94	179	
1	-2	28	1	R6.08	87.27	-87.26	-1.29	.28316	-1.19	-2.36	181	
1	-2	29	1	71.87	73.86	73.79	3.27	.33789	-2.00	-3.55	2	
1	-2	30	1	22.39	23.29	23.29	-0.28	.39307	-0.90	-4.12	0	
1	-2	31	1	5.99	4.81	-4.81	-0.29	.44855	1.18	2.29	184	
1	-2	32	1	28.33	28.96	28.95	1.01	.50422	-0.63	-2.59	1	
1	-2	33	1	37.70	38.36	38.20	3.44	.56003	-0.66	-2.07	5	
1	-2	34	1	21.47	21.16	21.16	-0.37	.61594	.30	1.02	359	
1	-2	35	1	2.54	4.59	-4.59	.12	.67192	-2.05	-1.13	178	
1	-2	36	1	50.73	59.94	59.81	3.96	.68371	.79	1.89	3	
1	-2	37	1	13.51	13.44	13.43	.22	.62757	.07	.19	0	
1	-2	38	1	5.14	5.33	-5.31	-0.43	.57146	-0.19	-0.26	185	
1	-2	39	1	42.79	42.75	-42.74	-0.84	.51541	.04	.13	182	
1	-2	40	1	28.49	28.46	28.43	1.41	.45944	.03	.13	2	
1	-2	41	1	27.19	27.47	27.46	.40	.40357	-0.28	-1.16	0	
1	-2	42	1	1.90	.74	-0.31	.67	.34786	1.16	.85	115	
1	-2	43	1	39.76	38.43	-38.43	-0.08	.29240	1.33	3.41	181	
1	-2	44	1	8.49	9.68	-9.65	-0.85	.23737	-1.19	-4.63	186	

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FL	K	L	GRP	FD	FC	A	B	SINTH/LW	DF	W*DF	ANGLE CALC	ANGLE STAT
1	0	-4	1	267.24	269.80	268.73	5.15	.18313	-1.27	-2.28	1	
1	0	-3	1	29.66	29.83	29.83	-4.40	.13070	-1.17	-2.64	181	
1	0	-2	1	26.55	26.41	-26.40	-1.35	.08356	2.14	7.40	181	
1	0	-1	1	18.28	18.69	-18.68	.37	.05685	-4.40	-2.32	178	
1	0	0	1	51.95	53.09	53.07	1.39	.07639	-1.13	-4.38	1	
1	0	1	1	38.89	37.61	-37.51	.19	.12161	1.28	3.73	179	
1	0	2	1	82.92	80.83	-80.83	-21	.17348	2.09	5.40	181	
1	0	3	1	16.03	16.23	-16.22	-34	.22750	-1.19	-1.77	182	
1	0	4	1	9.33	10.16	-10.12	-79	.28243	-.83	-3.27	185	
1	0	5	1	115.49	118.62	118.50	5.36	.33783	-3.13	-5.63	2	
1	0	6	1	18.73	19.59	18.58	-.66	.39350	.15	.66	358	
1	0	7	1	33.81	32.86	32.86	.40	.44925	.45	1.51	0	
1	0	8	1	14.77	14.01	13.97	1.09	.50530	.76	2.58	4	
1	0	9	1	17.52	16.12	16.09	1.04	.56134	.76	2.58	3	
1	0	10	1	22.35	21.15	21.14	.83	.61743	1.40	4.65	3	
1	1	11	1	23.83	23.95	-23.94	-.53	.67357	-.06	-.20	2	
1	1	12	1	47.44	46.16	46.05	3.12	.68308	1.27	4.20	3	
1	1	13	1	43.17	43.57	-43.56	-1.10	.62718	-.40	-1.27	182	
1	1	14	1	4.83	5.11	-5.10	-.10	.57137	-.27	-.35	182	
1	1	15	1	4.28	4.58	-4.58	-.01	.51567	-.30	-.37	181	
1	1	16	1	22.54	22.11	-22.10	-.55	.46014	.43	1.77	182	
1	1	17	1	33.35	32.51	32.38	2.81	.40483	.84	3.04	4	
1	1	18	1	36.25	34.21	34.19	1.33	.34986	2.03	6.61	2	
1	1	19	1	13.59	11.75	11.75	.01	.29542	1.84	8.63	0	
1	1	20	1	36.97	34.23	-34.23	-.40	.24185	2.74	7.85	181	
1	1	21	1	152.97	152.09	152.02	4.47	.18990	.89	2.19	1	
1	1	22	1	32.36	31.12	-31.10	-1.03	.14136	1.24	4.58	182	
1	1	23	1	11.54	11.83	11.83	.03	.10128	-.29	-1.54	0	
1	1	24	1	8.38	12.18	12.18	.06	.08298	-.81	-21.24	0	
1	1	25	1	7.31	7.16	7.11	-.84	.09932	.15	.76	354	
1	1	26	1	33.98	34.55	34.40	3.26	.13855	-.58	-1.57	5	
1	1	27	1	10.77	12.00	-11.99	.32	.18676	-1.22	-6.59	178	
1	1	28	1	17.63	16.71	16.71	-.21	.23857	.92	4.69	0	
1	1	29	1	24.30	23.33	23.33	.38	.29206	.96	4.03	0	
1	1	30	1	49.79	50.73	50.58	3.90	.34647	-.94	-2.27	4	
1	1	31	1	9.86	10.44	-10.41	-.79	.40141	-.58	-1.75	185	
1	1	32	1	15.17	14.74	14.73	.19	.45670	.44	1.56	185	
1	1	33	1	2.15	2.13	-2.12	.10	.51222	.02	.01	177	
1	1	34	1	6.36	6.71	6.68	-.67	.56791	-.36	-.61	355	
1	1	35	1	21.35	20.72	20.53	2.83	.62371	.63	2.07	7	
1	1	36	1	17.08	15.94	-15.93	-.53	.67961	1.14	3.20	182	
1	1	37	1	2.64	1.53	1.10	1.06	.68679	1.11	.67	43	
1	1	38	1	16.14	15.73	15.72	.42	.63152	.41	1.18	1	
1	1	39	1	5.07	5.02	4.85	1.28	.57645	.05	.07	14	
1	1	40	1	7.56	7.24	7.22	.60	.52166	.32	.65	4	
1	1	41	1	59.47	60.70	-60.68	-1.55	.46725	-1.23	-2.44	4	
1	1	42	1	92.95	92.90	92.78	4.58	.41335	.05	.08	2	
1	1	43	1	5.54	5.89	5.89	.22	.36021	-.35	-.72	2	
1	1	44	1	41.00	41.21	-41.20	-.64	.30821	-.21	-.64	181	
1	1	45	1	32.38	32.08	32.08	-.33	.25804	.30	1.00	0	
1	1	46	1	4.27	5.67	5.57	1.06	.21103	-1.39	-3.28	10	
1	1	47	1	51.39	53.45	53.45	.73	.16980	-2.06	-5.24	0	
1	1	48	1	15.33	14.42	14.39	.94	.13958	.90	4.80	3	
1	1	49	1	59.52	56.92	56.92	.50	.12840	2.60	7.69	0	
1	1	50	1	14.15	15.63	-15.60	-1.00	.14086	-1.47	-7.55	0	
1	1	51	1	91.47	94.76	94.61	5.27	.17190	-3.28	-8.56	3	

H	X	L	GRP	FD	FC	A	B	SINTH/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
1	2	33.93	1	32.05	32.05	-.21	.21356	1.88	5.78	182		
1	2	21.14	1	20.94	-20.94	-.17	.26081	.20	.91	181		
1	2	2.08	1	1.90	1.83	.32	.31110	.17	.16	179		
1	2	42.46	1	43.92	-43.92	.19	.36318	-1.46	-3.39	179		
1	2	14.21	1	14.61	14.59	.73	.41637	-.40	-1.46	2		
1	2	2.06	1	1.98	1.84	.39	.47031	.18	.12	11		
1	2	2.53	1	2.03	-2.02	-.18	.52475	.55	.42	185		
1	2	27.82	1	27.07	-27.06	-.84	.57955	.75	.42	192		
1	2	44.36	1	43.88	43.67	4.34	.63463	.48	1.19	5		
1	2	32.42	1	32.00	32.00	-.01	.66992	.43	1.45	0		
1	2	9.63	1	7.97	-7.97	-.20	.69478	1.62	3.03	182		
1	3	52.56	1	53.49	53.43	2.65	.64069	-.93	-2.54	2		
1	3	34.81	1	35.69	35.64	1.75	.58659	-.87	-3.14	2		
1	3	2.21	1	3.32	3.32	.20	.53319	-1.11	-.71	3		
1	3	56.15	1	57.24	-57.21	-1.91	.48048	-1.08	-2.60	182		
1	3	51.12	1	51.86	51.75	3.31	.42869	-.74	-1.91	3		
1	3	9.65	1	9.33	-9.30	-.74	.37821	.32	.99	185		
1	3	17.47	1	18.25	18.25	.16	.32964	-.78	-3.87	0		
1	3	41.37	1	41.78	-41.78	-.28	.28396	.09	.24	181		
1	3	24.27	1	23.72	-23.70	-.91	.24281	.55	2.57	193		
1	3	111.63	1	113.46	113.38	4.11	.20888	-1.78	-4.19	2		
1	3	52.96	1	53.63	53.61	1.45	.18617	-.67	-1.63	1		
1	3	12.91	1	13.97	-13.97	-.12	.17899	-1.06	-6.23	181		
1	3	1.53	1	1.03	-.74	-.71	.18913	.50	.46	224		
1	3	162.62	1	169.45	169.40	4.39	.21413	-6.83	-15.99	1		
1	3	40.78	1	41.68	-41.67	-.95	.24958	-.90	-2.61	182		
1	3	37.84	1	36.73	-36.73	-.28	.29168	1.11	2.92	181		
1	3	33.26	1	33.27	-33.27	-.08	.33796	-.01	-.04	181		
1	3	32.35	1	32.72	-32.70	-1.11	.38692	-.37	-1.22	182		
1	3	13.48	1	12.36	11.92	3.30	.43767	1.11	3.78	15		
1	3	9.79	1	9.15	-9.15	.23	.48864	.65	1.67	178		
1	3	25.40	1	26.15	26.15	.16	.54249	-.75	-2.87	0		
1	3	6.83	1	7.44	7.44	.15	.59598	-.61	-1.00	1		
1	3	35.99	1	35.05	34.92	3.00	.64996	.94	2.96	4		
1	3	7.82	1	5.74	5.73	-.29	.70431	2.08	3.28	358		
1	3	52.03	1	52.52	52.41	3.35	.65390	-1.49	-1.43	3		
1	3	7.93	1	6.72	-6.72	.20	.60152	1.21	2.33	178		
1	3	2.33	1	1.87	-1.82	-.46	.54952	.46	.30	195		
1	3	20.65	1	20.67	20.66	-.58	.49935	-.02	-.07	359		
1	3	6.86	1	6.88	6.80	1.03	.45016	-.01	-.02	8		
1	3	41.33	1	41.55	-41.55	.23	.40284	-.22	-.66	179		
1	3	37.40	1	37.63	37.60	1.70	.35816	-.23	-.74	2		
1	3	4.71	1	4.79	-4.74	.68	.31722	-.08	-.16	171		
1	3	22.24	1	24.54	-24.49	-1.58	.28165	-2.30	-11.00	184		
1	3	119.40	1	118.18	118.09	4.62	.25373	1.22	2.58	2		
1	3	13.70	1	12.07	12.07	.36	.23618	1.62	8.62	2		
1	3	45.35	1	43.27	-43.27	-.46	.23138	2.08	4.46	1		
1	3	51.89	1	52.53	-52.53	-.54	.24010	-.64	-1.35	181		
1	3	31.79	1	35.18	35.17	.92	.26097	-3.39	-11.20	181		
1	3	20.42	1	20.36	20.34	.98	.29141	.06	.26	2		
1	3	14.91	1	15.90	15.87	1.00	.32876	-.99	-4.39	3		
1	3	9.09	1	8.63	-8.63	.04	.37094	.46	1.40	179		
1	3	12.86	1	13.79	13.77	-.79	.41649	-.93	-3.16	357		
1	3	43.08	1	43.67	43.43	4.54	.46442	-.58	-1.39	5		
1	3	17.25	1	17.20	-17.20	-.39	.51406	.05	.17	182		
1	3	17.94	1	17.99	-17.99	-.36	.56496	-.05	-.17	182		

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LINE	GRP	FD	FC	A	B	SINTE/LW	DF	WAVE	ANGLE CALC	ANGLE STAT
1	1	16.57	15.53	15.53	.31	.61691	1.04	2.99	1	
2	1	7.11	5.89	5.88	.01	.66939	1.23	1.41	1	
3	1	32.14	31.55	31.55	2.45	.67149	1.49	1.72	3	
4	1	3.85	3.26	5.26	-.11	.62099	-1.41	-1.30	4	
5	1	9.92	8.90	8.78	.51	.57139	.12	.26	3	
6	1	34.95	35.54	35.93	.76	.52325	-.59	-2.06	3	
7	1	6.63	6.33	-6.31	-.61	.47692	.30	.58	1	
8	1	50.08	51.61	51.52	3.00	.43298	-.63	-.58	186	
9	1	13.45	14.14	-14.06	1.52	.39223	-.69	-2.57	3	
10	1	14.63	14.30	14.30	.20	.35577	.33	1.42	173	
11	1	74.66	76.96	-76.84	-1.90	.32503	-2.20	-3.99	0	
12	1	3.71	3.09	-1.52	2.69	.30179	.63	1.05	182	
13	1	5.05	2.45	-2.38	-.58	.28784	2.60	5.88	119	
14	1	33.03	33.75	33.75	.45	.28458	-.73	-2.31	194	
15	1	27.57	28.62	28.61	.53	.29235	-.73	-2.31	0	
16	1	56.59	58.55	-58.55	.45	.31033	-1.05	-4.10	1	
17	1	71.04	73.95	73.75	-1.30	.33689	-1.97	-3.65	182	
18	1	44.31	44.20	44.17	1.52	.37018	-.281	-4.99	2	
19	1	26.11	26.75	26.75	.22	.40857	.11	.26	1	
20	1	3.31	1.42	-1.15	-.83	.45075	-.63	-2.49	0	
21	1	15.62	14.91	14.68	2.65	.49575	1.89	1.97	216	
22	1	9.33	9.09	-9.08	-.45	.54288	.24	2.45	10	
23	1	13.47	13.14	-13.14	-.05	.59162	.33	.90	183	
24	1	2.43	3.14	.14	.03	.64162	.33	.90	181	
25	1	35.44	34.09	-34.06	-1.34	.69259	2.29	4.58	12	
26	1	14.88	15.33	15.29	1.13	.69293	1.35	4.58	183	
27	1	30.21	31.37	31.36	1.00	.64432	-.46	-1.14	4	
28	1	20.73	21.55	21.55	2.06	.59706	-1.16	-4.10	1	
29	1	5.74	3.34	3.22	.91	.55152	-.93	-3.17	1	
30	1	29.36	30.30	-30.24	-1.94	.50815	2.40	3.97	15	
31	1	82.22	85.42	85.33	3.78	.46756	-.94	-3.82	184	
32	1	2.46	2.75	2.73	.29	.43054	-3.20	-4.56	2	
33	1	27.71	28.94	-28.94	-.43	.39807	-.28	-.24	6	
34	1	63.25	63.10	-63.09	1.30	.37137	-1.24	-4.98	181	
35	1	1.88	2.75	2.64	.77	.35174	.14	.24	182	
36	1	24.19	23.01	22.99	1.05	.34041	-.87	-.65	16	
37	1	33.84	34.52	34.47	1.77	.33821	1.18	4.81	2	
38	1	1.91	.81	-.56	.59	.34532	-.68	-1.85	2	
39	1	13.83	15.08	-14.99	-1.66	.36119	1.09	.84	133	
40	1	92.83	94.66	94.55	4.66	.38474	-1.25	-4.94	187	
41	1	19.73	20.60	20.60	.21	.41466	-1.83	-3.01	2	
42	1	12.63	13.21	-13.20	-.35	.44966	-.87	-3.68	0	
43	1	23.20	23.36	-23.35	-.60	.48870	-.52	-1.69	182	
44	1	34.75	30.49	30.48	.57	.53085	-.16	-.63	182	
45	1	11.55	9.98	9.93	1.01	.57544	4.26	13.75	1	
46	1	8.76	8.76	-8.73	.73	.52194	1.57	4.03	5	
47	1	14.76	14.78	-14.78	.13	.66995	1.17	2.36	175	
48	1	17.17	17.33	17.22	1.91	.67136	-.03	-.06	179	
49	1	20.81	21.17	21.11	1.58	.62645	-.16	-.45	6	
50	1	14.84	15.02	-15.02	.07	.58353	-.36	-1.16	4	
51	1	10.55	10.35	-10.17	1.90	.54308	-.18	-.53	179	
52	1	32.43	33.34	-33.25	2.38	.50567	.20	.53	191	
53	1	2.03	.22	-.01	-.22	.47205	-.91	-3.63	4	
54	1	12.47	12.88	12.85	.78	.44306	1.81	1.24	269	
55	1	25.75	25.69	25.67	.85	.41968	-.41	-1.32	3	
56	1	14.64	14.77	14.75	-.83	.40288	.07	.30	1	
57	1						-.14	-.52	357	

	FC	A	B	SINTH/LW	DF	W*DF	ANGLE CALC	ANGLE STAT
1	23.73	24.99	-24.85	2.64	.39351	-1.21	-5.00	173
1	28.44	27.49	27.44	1.65	.39209	.95	3.37	173
1	9.34	9.32	9.82	.09	.39871	.02	.05	0
1	19.00	18.72	-18.64	-1.72	.41299	.28	1.20	186
1	13.73	13.41	13.21	2.27	.43416	.32	1.08	9
1	3.15	2.53	2.52	-.13	.46129	.63	.61	358
1	9.23	10.23	10.21	.52	.49339	-.99	-2.40	2
1	15.11	14.96	-14.96	.28	.52956	.14	.45	178
1	5.75	6.66	6.61	-.82	.56902	-.90	-1.34	353
1	35.72	35.48	35.33	3.24	.61113	.24	.84	5
1	13.23	13.14	13.11	.99	.65539	.08	.20	4
1	15.12	13.25	-13.25	-.22	.70139	1.87	4.57	4
1	23.24	23.13	23.04	2.01	.70161	.11	.35	181
1	9.24	9.17	9.15	.50	.65905	.07	.14	3
1	4.67	2.60	-2.60	.08	.61871	2.07	2.49	3
1	21.01	20.97	-20.95	-.90	.58103	.04	.13	178
1	30.52	31.13	31.12	1.01	.54657	-.62	-2.52	183
1	33.65	34.55	34.53	1.35	.51599	-.91	-3.40	2
1	25.34	25.34	25.26	1.95	.49000	.06	.23	4
1	48.37	48.48	48.46	1.33	.46936	-.11	-.27	1
1	35.48	36.24	-36.17	-2.15	.45482	-.75	-2.48	1
1	36.75	35.50	35.37	3.06	.44695	1.25	3.90	184
1	35.89	36.63	-36.63	-.10	.44613	-.74	-2.29	4
1	12.03	11.58	-11.58	-.11	.45237	.45	1.39	181
1	31.54	32.13	-32.12	-.72	.46541	-.58	-2.02	181
1	23.01	22.55	-22.55	-.02	.48469	.46	1.85	182
1	16.93	16.75	16.70	1.23	.50950	.18	.63	181
1	39.31	39.66	39.61	1.87	.53909	.35	-.05	2
1	41.99	42.00	41.98	1.09	.57270	-.01	-.03	1
1	40.33	39.65	-39.61	-1.80	.60968	.69	2.03	183
1	27.05	27.12	26.92	3.31	.64246	-.07	-.24	7
1	19.52	18.76	18.75	.37	.69154	.76	2.10	1
1	2.46	1.61	1.59	.24	.65441	.85	.48	8
1	33.45	34.42	34.39	1.49	.65653	-.97	-3.45	2
1	2.34	1.47	-1.35	.57	.62145	.87	.52	2
1	10.17	10.34	-10.31	-.85	.58969	-.17	-.40	157
1	41.67	42.84	42.78	2.39	.56179	-1.17	-3.73	185
1	33.53	33.62	33.57	1.76	.53836	-.08	-.30	3
1	12.80	11.71	-11.71	1.10	.52002	1.09	3.31	3
1	64.18	62.82	-62.77	-2.46	.50730	1.36	2.58	179
1	53.77	53.57	53.52	2.29	.50064	.20	.38	183
1	3.20	4.30	-4.30	-.02	.50027	.20	.38	2
1	11.42	10.78	-10.75	.78	.50622	-.10	-1.03	181
1	10.68	10.21	-10.20	.48	.51827	.64	1.81	175
1	5.21	.91	.13	-.90	.53600	.47	1.19	177
1	13.41	14.21	13.96	2.66	.55888	4.30	6.27	279
1	13.08	12.84	12.78	1.24	.58629	-.80	-2.31	10
1	8.79	8.27	8.27	.21	.61765	.24	.64	5
1	11.74	11.10	-11.00	-1.47	.65238	.52	.99	5
1	23.42	22.50	22.42	1.79	.68996	.64	1.42	188
1	6.67	7.58	7.41	1.64	.69657	.92	2.79	4
1	9.59	8.32	8.25	1.08	.66390	-.92	-1.28	4
1	31.91	32.64	-32.56	-2.28	.63456	1.27	2.56	12
1	9.70	10.15	9.99	1.79	.60903	-.73	-2.68	7
1	13.47	13.30	13.29	.52	.58781	-.44	-.97	185
1	15.85	14.91	-14.91	.28	.57139	.17	.47	10
1						.95	3.03	2

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F	K	L	G	FD	FC	A	B	SINHL/LH	DF	W*DF	ANGLE CALC	ANGLE STAT
1	10	-3	1	5.477	6.776	6.775	-.43	.56017	-1.29	-1.96	181	
1	10	-2	1	19.669	19.50	17.449	.62	.55448	.19	.67	357	
1	10	-1	1	14.779	15.33	15.28	1.26	.55450	-.55	-1.71	1	
1	10	0	1	25.12	25.43	25.34	1.84	.56021	-.33	-1.25	4	
1	10	1	1	6.229	7.59	7.53	.92	.57145	.70	1.40	4	
1	10	2	1	19.009	18.59	18.448	-1.99	.58790	.50	1.66	6	
1	10	3	1	2.67	2.44	.87	2.27	.60913	.23	.15	187	
1	10	4	1	4.83	2.55	2.55	.12	.63468	.28	2.58	69	
1	10	5	1	15.07	14.76	-14.76	-.15	.66404	.31	.81	2	
1	10	6	1	2.60	.38	.05	-.37	.69672	2.22	1.20	181	
1	10	7	1	45.90	45.82	-45.76	-2.36	.68085	.09	.25	278	
1	11	-5	1	4.40	5.68	5.51	1.34	.65740	-1.27	-1.32	183	
1	11	-4	1	3.10	2.76	2.73	.38	.63809	.35	.27	13	
1	11	-3	1	33.29	32.91	32.87	1.55	.62329	.38	1.40	2	
1	11	-2	1	24.81	23.81	23.78	1.15	.61334	1.00	3.50	2	
1	11	-1	1	2.39	1.99	1.71	-1.02	.60846	.39	.23	330	
1	11	0	1	23.69	22.84	22.75	2.02	.60878	.85	2.99	5	
1	11	1	1	11.55	10.93	10.37	1.15	.61429	.62	1.42	6	
1	11	2	1	15.49	14.85	14.84	.51	.62486	.64	1.75	1	
1	11	3	1	30.00	29.90	-29.83	-2.03	.64023	.10	.35	184	
1	11	4	1	2.52	2.16	1.81	1.17	.66007	.36	.20	32	
1	11	5	1	26.67	26.02	-26.02	-.05	.68399	.65	2.09	181	
1	11	6	1	12.44	12.19	12.16	.88	.68902	.25	.55	4	
1	11	7	1	41.20	40.80	40.75	1.97	.67562	.40	1.24	2	
1	11	8	1	2.51	4.74	-4.67	.82	.66672	-2.23	-1.24	170	
1	11	9	1	43.03	41.35	-41.28	-2.39	.66252	1.67	4.67	184	
1	11	10	1	38.16	37.80	37.75	1.90	.66310	.36	1.06	2	
1	11	11	1	12.59	13.10	13.09	.53	.66845	-.51	-1.13	2	
1	11	12	1	4.97	5.06	-5.05	.37	.67845	-.19	1.51	175	
1	11	13	1	25.38	24.90	-24.89	-.62	.69290	.49	1.55	357	
1	11	14	1	11.07	10.34	10.31	-.70	.70365	.74	1.55	179	
1	11	15	1	16.61	16.59	-16.59	.10	.68597	.02	.05	4	
1	11	16	1	13.48	14.08	14.04	1.01	.57008	-.60	-1.45	4	
1	11	17	1	10.65	10.02	10.01	.50	.65865	.63	1.37	2	
1	11	18	1	25.34	26.09	26.04	1.67	.65190	-.75	-2.51	3	
1	11	19	1	40.52	41.84	-41.77	-2.51	.64999	-1.32	-3.96	184	
1	11	20	1	6.82	6.09	6.06	.64	.65296	.72	1.13	6	
1	11	21	1	31.91	32.27	32.27	1.60	.66074	.40	1.38	2	
1	11	22	1	7.33	6.72	-6.67	.88	.67316	.60	.99	172	
1	11	23	1	10.53	10.11	10.11	-.19	.68998	.43	.90	359	
1	11	24	1	3.51	.65	-.01	.65	.68099	2.85	2.26	91	
1	11	25	1	8.26	7.35	7.30	.86	.65565	.90	1.62	6	
1	11	26	1	27.17	27.61	-27.57	-1.45	.63432	-.43	-1.50	184	
1	11	27	1	9.77	9.93	-9.93	.05	.61741	-.16	-.34	179	
1	11	28	1	7.54	7.65	-7.63	.56	.60530	-.11	-.19	175	
1	11	29	1	36.18	37.80	37.73	2.33	.59827	-1.11	-1.19	3	
1	11	30	1	7.58	8.24	-8.01	-.94	.60550	-.66	-1.25	194	
1	11	31	1	28.48	27.90	27.87	1.20	.60004	.59	2.20	2	
1	11	32	1	44.81	44.98	44.94	2.05	.60881	-.18	-.50	2	
1	11	33	1	20.03	20.55	20.53	.94	.62257	-.52	-1.74	2	
1	11	34	1	5.75	6.81	6.73	1.06	.64101	-1.06	-1.46	8	
1	11	35	1	36.73	37.18	-37.15	-1.60	.66373	-.45	-1.55	183	
1	11	36	1	8.70	8.22	8.20	.61	.69032	.48	.90	4	
1	11	37	1	14.75	15.42	15.41	.40	.69772	-.66	-1.59	1	
1	11	38	1	4.07	4.69	4.67	.42	.66378	-.62	-.55	5	
1	11	39	1	14.42	15.81	-15.81	-.21	.63306	-1.39	-3.70	181	

H	K	L	GSP	FD	FC	A	B	SINHT/L4	DF	W*DF	ANGLE CALC	ANGLE STAT
2	-10	-6	1	9.54	10.15	-10.00	1.74	.60603	-.61	-1.31	170	
2	-10	-5	1	10.48	10.68	-10.47	-2.11	.58320	-.20	-.50	170	
2	-10	-4	1	7.10	6.40	6.38	.49	.56510	.71	1.31	192	
2	-10	-3	1	22.55	22.21	22.15	1.64	.55218	.34	1.27	4	
2	-10	-2	1	14.67	16.22	16.11	1.83	.54481	-1.55	-4.97	6	
2	-10	-1	1	2.20	4.15	4.15	-.11	.54321	-1.96	-1.25	359	
2	-10	0	1	40.77	40.06	40.06	.66	.54745	.70	1.92	0	
2	-10	1	1	21.65	22.51	22.50	.90	.55738	-.86	-3.17	2	
2	-10	2	1	10.94	11.44	11.44	.29	.57270	-.50	-1.26	2	
2	-10	3	1	3.73	3.12	2.59	1.75	.59301	.60	.66	1	
2	-10	4	1	28.57	29.60	-29.50	-2.41	.61781	-1.03	-3.80	34	
2	-10	5	1	2.34	.67	-.37	.56	.64658	1.68	1.00	185	
2	-10	6	1	6.43	5.77	-5.61	1.34	.67882	.66	.98	123	
2	-10	6	1	26.53	26.20	26.18	1.12	.69368	.33	1.04	166	
2	-9	-9	1	2.45	1.25	.67	-1.06	.65499	1.20	.68	2	
2	-9	-9	1	12.92	13.61	-13.60	-.27	.61903	-.69	-1.77	303	
2	-9	-9	1	17.31	18.53	-18.53	.44	.58628	-1.23	-3.84	182	
2	-9	-7	1	48.17	48.83	48.72	3.19	.55732	-.65	-1.51	178	
2	-9	-5	1	2.83	3.07	-2.69	-1.48	.53277	-.24	-.20	3	
2	-9	-4	1	2.15	1.97	1.84	.72	.51325	.18	.12	209	
2	-9	-3	1	24.24	24.48	24.43	1.59	.49936	-.24	-.09	21	
2	-9	-2	1	13.80	13.65	13.64	.65	.49158	.14	.49	3	
2	-9	-1	1	32.17	33.02	32.98	1.57	.49020	-.85	-2.88	2	
2	-9	0	1	55.71	55.28	-55.25	-1.83	.49527	.43	.83	182	
2	-9	1	1	9.04	9.28	-9.28	-.06	.50659	-.24	-.62	181	
2	-9	2	1	8.80	8.96	8.91	.95	.52377	-.16	-.40	6	
2	-9	3	1	29.29	30.60	30.50	2.45	.57425	-1.31	-5.10	4	
2	-9	4	1	9.09	8.79	-8.63	-1.67	.57340	-.27	-.71	191	
2	-9	5	1	18.49	18.76	18.73	1.03	.60460	-.30	.30	3	
2	-9	6	1	32.34	32.69	32.63	1.90	.63926	-.35	-1.29	3	
2	-9	7	1	19.03	18.80	-18.80	.34	.67684	.23	.67	178	
2	-8	-11	1	2.56	2.94	-2.93	-.17	.69794	-.38	-.21	184	
2	-8	-10	1	28.32	28.04	27.91	2.65	.65496	.28	.97	5	
2	-8	-9	1	28.52	28.89	-28.84	-1.66	.61414	-.37	-1.36	184	
2	-8	-6	1	46.63	48.32	48.31	.79	.57596	-1.69	-4.05	0	
2	-8	-7	1	43.87	43.97	43.94	1.78	.54095	-1.10	-.29	2	
2	-8	-6	1	37.41	38.08	38.00	2.46	.50979	-.67	-2.09	3	
2	-8	-5	1	25.54	26.77	-26.77	-.51	.48322	-1.13	-4.66	3	
2	-8	-4	1	5.27	4.73	4.73	.14	.46202	.54	.87	182	
2	-8	-3	1	12.90	12.70	-12.70	.06	.44696	.20	.65	1	
2	-8	-2	1	51.92	52.54	-52.54	-.48	.43868	-.62	-1.29	179	
2	-8	-1	1	48.79	49.20	49.12	2.88	.43756	-.41	-1.05	181	
2	-8	0	1	64.57	63.02	-62.96	-2.60	.44366	1.55	2.31	3	
2	-8	1	1	6.14	6.58	6.56	.44	.45668	-.44	-.87	176	
2	-8	2	1	41.54	41.25	41.20	2.04	.47606	.29	.79	2	
2	-8	3	1	60.77	61.86	61.81	2.39	.50106	-1.09	-2.10	2	
2	-8	4	1	11.94	11.43	11.43	.05	.53088	.51	1.56	0	
2	-8	5	1	13.32	12.61	-12.61	.02	.56477	.71	2.19	0	
2	-8	6	1	33.73	33.62	33.61	.83	.60204	.10	.37	179	
2	-8	7	1	9.19	8.99	8.98	.30	.64210	.20	.41	1	
2	-8	8	1	2.54	3.99	-3.58	1.76	.68445	-1.45	-.80	1	
2	-7	-11	1	16.56	15.90	15.89	.63	.66368	.66	1.83	153	
2	-7	-10	1	46.45	47.62	47.47	3.75	.61862	-1.16	-2.92	2	
2	-7	-9	1	12.50	12.07	-12.07	-1.23	.57557	.43	1.18	4	
2	-7	-8	1	20.30	19.57	19.55	.75	.53498	.73	2.68	2	
2	-7	-7	1	55.93	56.89	56.87	1.54	.49748	-.96	-1.83	186	

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H	K	L	GRP	FD	FC	A	B	SINTH/LW	DF	W=DF	ANGLE CALC	ANGLE STAT
2	-5	6	1	33.95	33.92	33.90	1.09	.50946	-.27	-.91	1	
2	-5	7	1	30.94	30.83	30.79	1.47	.55724	.11	.40	2	
2	-5	8	1	7.04	6.56	6.55	.40	.60649	.40	.82	3	
2	-5	9	1	14.05	13.37	13.29	1.75	.65628	-.32	-.96	5	
2	-4	10	1	11.11	10.95	10.93	-.57	.68452	.16	.33	183	
2	-4	11	1	2.44	1.93	1.93	.05	.63184	.52	.30	178	
2	-4	12	1	2.00	3.38	3.37	-.26	.57985	-.38	.31	195	
2	-4	13	1	22.34	21.82	21.80	-.80	.52875	.52	2.01	183	
2	-4	14	1	30.69	31.00	30.75	3.91	.47884	-.30	-1.17	7	
2	-4	15	1	9.02	8.50	8.48	-.64	.43052	.52	1.35	185	
2	-4	16	1	7.99	8.40	8.40	.06	.38439	-.41	-1.05	0	
2	-4	17	1	63.79	62.56	62.54	1.50	.34135	1.24	2.18	0	
2	-4	18	1	37.07	37.02	36.94	2.45	.30271	.05	.16	3	
2	-4	19	1	6.96	6.41	6.41	-.28	.27038	.55	1.77	358	
2	-4	20	1	10.64	8.01	8.01	.02	.24683	.55	1.77	179	
2	-4	21	1	16.15	16.93	16.93	-.04	.23472	2.83	13.42	0	
2	-4	22	1	43.19	41.70	41.70	-.70	.23584	-.78	-4.42	0	
2	-4	23	1	17.35	17.01	17.01	3.89	.24999	1.48	3.15	181	
2	-4	24	1	8.56	9.60	8.78	3.89	.27518	-1.05	-4.46	23	
2	-4	25	1	20.12	20.04	20.03	.44	.30871	.34	1.97	185	
2	-4	26	1	27.69	28.34	28.23	1.76	.34819	.09	.41	1	
2	-4	27	1	40.63	44.15	44.12	1.57	.39182	-.64	-2.52	3	
2	-4	28	1	35.74	35.52	35.52	.41	.43836	-3.51	-9.50	177	
2	-4	29	1	4.72	1.54	1.54	.02	.48698	.22	.69	0	
2	-4	30	1	21.41	21.60	21.60	-.35	.53711	3.18	4.75	0	
2	-4	31	1	2.27	3.87	3.85	-.38	.58837	-.19	-.71	181	
2	-4	32	1	42.25	41.54	41.42	3.18	.64049	-1.60	-.98	186	
2	-3	33	1	5.15	2.11	2.11	1.73	.66705	.71	2.07	4	
2	-3	34	1	25.25	25.16	25.10	1.50	.69327	.09	.30	226	
2	-3	35	1	26.36	26.21	26.20	.55	.61318	3.04	3.51	3	
2	-3	36	1	6.68	6.76	6.76	-.04	.55979	.16	.55	1	
2	-3	37	1	35.68	35.45	35.45	-.36	.50705	-.08	-.13	0	
2	-3	38	1	82.32	82.01	81.87	4.76	.45518	.22	.76	181	
2	-3	39	1	13.05	13.18	13.15	-.87	.40450	.31	.45	3	
2	-3	40	1	47.68	48.70	48.70	-.22	.35554	-.12	-.43	357	
2	-3	41	1	48.14	46.35	46.35	.05	.30911	-1.02	-2.41	181	
2	-3	42	1	25.97	24.26	24.26	-.29	.26654	1.79	4.62	179	
2	-3	43	1	80.28	85.61	85.57	2.64	.22997	1.71	6.84	181	
2	-3	44	1	35.93	35.88	35.87	-.73	.20269	-5.33	-11.83	1	
2	-3	45	1	6.87	7.50	7.50	-.36	.18876	.05	.17	182	
2	-3	46	1	51.09	52.04	52.04	-.36	.18876	-.64	-.17	182	
2	-3	47	1	30.81	38.10	37.77	5.04	.19113	-.96	-2.56	358	
2	-3	48	1	10.69	14.22	14.17	-1.28	.20924	-7.29	-22.51	7	
2	-3	49	1	3.46	1.34	1.28	.38	.23956	-3.53	-17.27	186	
2	-3	50	1	26.52	26.49	26.47	1.01	.32195	2.12	4.07	16	
2	-3	51	1	33.01	33.39	33.38	-.60	.36921	.03	.14	2	
2	-3	52	1	23.80	24.46	24.37	2.11	.41872	-.65	-3.06	182	
2	-3	53	1	26.14	26.30	26.26	-1.35	.46978	-.16	-.68	4	
2	-3	54	1	2.13	.94	-.87	-.34	.52193	1.20	.79	183	
2	-3	55	1	4.61	4.36	4.31	.65	.57487	.25	.32	202	
2	-3	56	1	38.06	37.40	37.25	3.36	.62841	.25	.32	202	
2	-3	57	1	16.46	15.59	15.58	-.51	.68240	.67	2.05	5	
2	-2	58	1	41.94	42.53	42.35	3.88	.65369	.87	2.43	359	
2	-2	59	1	12.78	12.28	12.28	-.01	.59892	-.58	-1.97	5	
2	-2	60	1	14.81	15.20	15.20	.10	.54449	.50	1.31	181	
2	-2	61	1	15.20	15.15	15.14	.41	.49048	-.40	-1.23	0	
2	-2	62	1	15.15	15.15	15.14	.41	.49048	.06	.19	1	

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H	K	L	GRP	FD	FC	A	P	SINH/LW	DF	M+DF	ANGLE CALC	ANGLE STAT
2	-2	-9	1	19.77	19.40	19.69	2.05	.43708	-.03	-.13	181	
2	-2	-2	1	56.04	55.00	-55.00	-.83	.38451	1.04	2.38	181	
2	-2	-7	1	26.73	27.47	27.47	.29	.33318	-.74	-2.96	181	
2	-2	-6	1	52.43	51.88	-51.87	-.49	.29377	.55	1.08	181	
2	-2	-5	1	54.72	52.62	-52.60	-1.05	.23748	2.10	4.53	182	
2	-2	-4	1	42.56	46.21	45.94	5.00	.19651	-3.65	-8.46	6	
2	-2	-3	1	4.65	4.33	-4.30	-.51	.16489	.32	.93	187	
2	-2	-2	1	6.36	9.74	-9.74	.07	.14871	-3.38	-13.51	179	
2	-2	-1	1	59.73	56.11	56.09	1.30	.15294	-3.38	-13.51	179	
2	-2	0	1	150.93	157.20	157.18	2.75	.17612	2.62	7.23	1	
2	-2	1	1	17.95	18.20	-18.20	-.11	.21213	-6.28	-16.27	1	
2	-2	2	1	32.47	33.36	-33.35	-.29	.25560	-.35	-1.91	181	
2	-2	3	1	20.06	19.32	-19.31	-.48	.30335	-.89	-3.04	181	
2	-2	4	1	21.69	22.37	22.36	-.44	.35365	.74	3.59	182	
2	-2	5	1	28.46	29.40	29.12	4.06	.40552	-.69	-3.34	359	
2	-2	6	1	56.00	58.06	-58.04	-1.67	.45846	-.94	-3.55	7	
2	-2	7	1	21.03	21.88	21.87	.39	.51213	-2.06	-4.14	182	
2	-2	8	1	20.65	19.55	19.48	1.68	.56633	-.25	-.99	1	
2	-2	9	1	16.82	16.90	16.83	1.55	.62090	1.10	3.98	4	
2	-2	10	1	5.10	5.51	-5.51	.25	.67577	-.08	-.24	5	
2	-1	-13	1	2.55	1.37	1.29	-.47	.70012	-.41	-.47	177	
2	-1	-12	1	51.83	52.56	52.41	3.96	.64467	1.18	.65	341	
2	-1	-11	1	7.27	6.90	-6.87	-.74	.58939	-.73	-1.82	4	
2	-1	-10	1	9.01	9.77	-8.76	-.27	.53433	.37	.66	187	
2	-1	-9	1	27.76	27.33	27.33	.37	.47958	.24	.55	182	
2	-1	-8	1	41.43	41.00	-41.00	-.47	.42525	.43	1.78	0	
2	-1	-7	1	29.94	29.83	29.83	.64	.31869	.33	1.25	181	
2	-1	-6	1	34.04	32.96	32.96	.03	.26731	.11	-1.17	170	
2	-1	-5	1	14.42	15.38	-15.38	-.13	.21840	1.08	3.57	1	
2	-1	-4	1	5.04	4.82	-4.82	4.49	.17406	-.96	-5.26	181	
2	-1	-3	1	23.37	22.35	22.33	-.85	.13873	.22	.63	111	
2	-1	-2	1	35.80	36.04	36.04	.17	.12061	1.01	3.50	358	
2	-1	-1	1	27.02	27.74	27.74	.46	.12728	-.24	-.69	0	
2	-1	0	1	51.03	52.01	-52.00	-.85	.15558	-.73	-2.78	0	
2	-1	1	1	83.20	89.17	89.13	2.83	.19637	-.98	-2.62	181	
2	-1	2	1	14.61	16.70	16.70	-.09	.24346	-5.97	-14.51	1	
2	-1	3	1	5.30	4.98	4.97	-.30	.29382	-2.08	-11.78	0	
2	-1	4	1	1.81	.61	.08	.61	.34604	.32	.81	357	
2	-1	5	1	21.77	20.96	20.57	4.02	.39939	1.19	.92	82	
2	-1	6	1	2.04	4.03	3.96	-.74	.45346	.81	3.78	11	
2	-1	7	1	6.91	5.64	-5.64	.25	.50803	-1.99	-1.36	350	
2	-1	8	1	12.73	12.56	12.54	.58	.61814	1.27	2.56	177	
2	-1	9	1	44.40	44.31	-44.30	-.87	.67351	.18	.48	2	
2	-1	10	1	12.11	11.74	11.55	2.11	.67351	.09	.23	182	
2	0	-14	1	34.70	34.37	-34.35	-.95	.69573	.37	.84	10	
2	0	-13	1	12.52	12.13	12.00	1.79	.64019	.33	1.14	182	
2	0	-12	1	8.97	8.84	8.84	-.09	.58481	.39	.94	8	
2	0	-11	1	15.74	15.70	15.68	.69	.52963	.13	.28	0	
2	0	-10	1	6.30	3.97	3.97	.23	.47473	.04	.13	0	
2	0	-9	1	5.14	5.27	5.18	-.99	.42022	2.33	4.33	3	
2	0	-8	1	108.10	107.63	107.50	5.25	.36626	-.13	-.22	191	
2	0	-7	1	14.89	16.48	-16.48	.11	.31315	.47	.80	2	
2	0	-6	1	2.55	2.50	-2.48	-.26	.26141	.06	.07	179	
2	0	-5	1	4.89	.43	-.42	-.11	.21202	4.46	11.76	186	
2	0	-4	1	36.83	37.86	37.81	1.93	.16711	-1.03	-2.52	196	

T	K	L	GRP	FD	FC	A	B	SINH/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
2	0	-3	1	19.27	19.60	-19.60	-.12	.13135	-.33	-1.30	181	
2	0	-2	1	52.99	48.94	-42.94	.05	.11371	4.05	12.64	179	
2	0	-1	1	44.55	42.42	-42.42	-.36	.12231	2.13	6.37	181	
2	0	0	1	44.72	44.81	-44.80	-.09	.15278	-.09	-.25	182	
2	0	0	1	150.82	150.89	150.79	5.71	.19513	-10.07	-24.77	2	
2	0	0	1	29.17	20.69	20.69	-.46	.24323	1.48	6.78	359	
2	0	0	1	4.20	5.39	-5.39	.10	.29427	-1.19	-2.32	178	
2	0	0	1	22.95	22.81	22.78	1.07	.34597	.15	.73	2	
2	0	0	1	19.21	17.45	17.37	1.73	.40066	.75	3.28	5	
2	0	0	1	12.28	12.97	-12.97	.19	.45500	-.69	-2.24	179	
2	0	0	1	32.34	32.53	-32.53	-.38	.50977	.31	1.11	181	
2	0	0	1	4.45	5.08	-5.06	-.41	.56486	-.63	-.75	185	
2	0	0	1	17.00	16.35	-16.33	-.87	.62017	.65	1.98	184	
2	0	0	1	42.22	41.67	41.50	3.74	.67566	.55	1.62	5	
2	0	0	1	17.61	17.34	-17.34	-.25	.69560	.27	.74	181	
2	0	0	1	7.97	7.27	7.27	.03	.64034	-.20	-.31	0	
2	0	0	1	7.51	7.73	7.46	2.00	.58529	-.22	-.40	15	
2	0	0	1	30.48	29.49	29.45	1.43	.53052	1.00	4.17	2	
2	0	0	1	20.69	20.28	20.28	.42	.47612	.42	1.70	0	
2	0	0	1	35.90	36.39	36.39	-.47	.42223	-.49	-1.56	0	
2	0	0	1	59.47	59.98	59.82	4.41	.36908	-.51	-.84	4	
2	0	0	1	34.87	33.32	-33.31	-1.03	.31704	1.54	5.34	182	
2	0	0	1	2.40	2.89	2.89	-.07	.26676	-.49	-.57	359	
2	0	0	1	25.35	24.62	-24.62	.00	.21945	3.73	13.22	179	
2	0	0	1	21.40	21.01	-20.50	-.74	.17750	.88	3.77	183	
2	0	0	1	17.36	17.33	17.33	2.57	.14563	-3.63	-17.19	7	
2	0	0	1	54.90	52.53	52.52	.90	.13138	-1.42	-3.88	0	
2	0	0	1	41.36	42.78	-42.78	-.28	.14024	2.38	6.94	0	
2	0	0	1	12.25	14.70	-14.70	-.19	.16859	-2.46	-14.07	181	
2	0	0	1	5.29	9.29	8.02	4.69	.20865	-4.00	-12.02	30	
2	0	0	1	16.75	17.62	-17.60	-.74	.25494	-.87	-4.80	183	
2	0	0	1	18.45	18.17	18.17	.03	.30465	.28	1.41	0	
2	0	0	1	14.55	13.93	13.93	.20	.35634	.62	2.68	0	
2	0	0	1	30.39	32.09	32.09	-.41	.40926	-1.70	-5.97	0	
2	0	0	1	24.87	25.42	25.28	2.66	.46299	-.54	-2.37	6	
2	0	0	1	15.52	14.49	-14.49	-.40	.51729	1.03	3.50	182	
2	0	0	1	18.53	18.23	-18.23	-.40	.57198	.30	1.00	182	
2	0	0	1	27.28	27.07	27.06	.77	.62697	.21	.75	1	
2	0	0	1	34.84	34.55	34.40	3.22	.68218	.29	.91	5	
2	0	0	1	11.25	10.37	10.36	.54	.69973	.87	1.81	3	
2	0	0	1	18.92	18.40	-18.35	-1.32	.64512	.52	1.56	3	
2	0	0	1	38.08	38.33	38.13	3.91	.59083	-.25	-.92	5	
2	0	0	1	2.19	.98	-17.97	.57	.53698	1.21	.78	144	
2	0	0	1	3.09	3.44	3.39	-.61	.48369	.59	2.25	182	
2	0	0	1	35.47	36.18	36.14	1.73	.43119	-.35	-.34	352	
2	0	0	1	5.65	6.38	6.33	.83	.37979	-.71	-2.45	2	
2	0	0	1	24.70	26.55	26.54	.71	.28273	-.70	-1.75	7	
2	0	0	1	21.41	22.14	-22.10	-1.26	.23939	-1.85	-7.80	1	
2	0	0	1	15.31	14.07	-13.22	4.80	.20257	-.72	-3.25	184	
2	0	0	1	3.59	3.47	-3.47	.14	.17638	1.24	6.95	160	
2	0	0	1	32.35	31.25	31.25	-.08	.16595	.12	.24	177	
2	0	0	1	2.18	2.14	-2.14	.02	.17414	1.10	3.71	0	
2	0	0	1	44.45	46.21	-46.20	.83	.19864	.04	.05	179	
2	0	0	1	2.01	4.88	4.87	.38	.27709	-1.76	-3.74	178	
2	0	0	1						-2.87	-2.79	4	

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H	K	L	GRP	FO	FC	A	B	SINTH/LW	DF	M*DF	ANGLE CALC	ANGLE STAT
2	2	3	1	35.38	35.85	35.94	.66	.32399	-.47	-1.39	1	
2	2	4	1	3.73	4.34	4.34	-.07	.37352	-.62	-.88	0	
2	2	5	1	20.55	19.91	-19.88	-1.15	.42475	.64	2.78	184	
2	2	6	1	97.59	98.56	98.43	4.94	.47713	-.96	-1.37	2	
2	2	7	1	23.30	22.96	22.96	.03	.53033	.34	1.31	0	
2	2	8	1	5.12	5.18	5.18	-.11	.58413	-.05	-.07	182	
2	2	9	1	2.42	2.61	2.53	.66	.63836	-.19	-.11	14	
2	2	10	1	6.13	5.68	-5.63	.77	.69294	.45	.56	172	
2	2	11	1	59.72	60.77	-60.73	-2.16	.65442	-1.05	-2.63	183	
2	2	12	1	28.48	28.52	28.35	3.16	.60129	-.05	-.18	6	
2	2	13	1	2.18	.47	.08	-.46	.54881	1.71	1.10	280	
2	2	14	1	14.72	15.30	-15.30	-.08	.49717	-.58	-1.90	181	
2	2	15	1	53.80	54.37	54.37	-.43	.44668	-.57	-1.43	181	
2	2	16	1	2.77	3.42	3.40	.37	.39776	-.65	-.64	354	
2	2	17	1	78.59	79.32	79.26	.30	.35108	-.63	-1.09	2	
2	2	18	1	42.44	42.34	42.31	1.70	.30766	.10	.32	2	
2	2	19	1	38.55	36.35	36.35	.16	.26909	2.20	5.98	0	
2	2	20	1	30.58	30.02	-30.00	-1.13	.23772	.56	1.95	183	
2	2	21	1	63.77	67.34	67.19	4.54	.21671	-3.57	-8.13	3	
2	2	22	1	46.83	48.93	-48.82	-1.02	.20921	-2.10	-4.77	182	
2	2	23	1	6.90	8.14	-8.14	-.26	.21663	-1.25	-4.42	182	
2	2	24	1	17.06	16.46	-16.46	-.10	.23757	.60	3.01	181	
2	2	25	1	27.54	26.61	-26.59	-1.04	.26889	.93	3.42	183	
2	2	26	1	53.72	65.70	65.63	3.09	.30743	-1.98	-3.69	2	
2	2	27	1	5.64	5.32	5.27	.78	.35083	.32	.69	8	
2	2	28	1	26.73	25.96	25.96	.16	.37749	.78	2.89	0	
2	2	29	1	9.53	10.01	-10.01	-.33	.44640	-.49	-1.33	192	
2	2	30	1	64.15	64.13	64.01	3.96	.49688	.03	.06	3	
2	2	31	1	5.33	3.32	3.29	-.41	.54852	2.01	3.02	353	
2	2	32	1	7.49	6.55	6.55	.11	.60100	.93	1.64	0	
2	2	33	1	8.15	7.49	-7.49	-.07	.65412	.66	1.15	181	
2	2	34	1	10.35	10.77	-10.72	-1.05	.66806	-.42	-1.15	186	
2	2	35	1	4.71	4.70	4.52	1.27	.61641	.01	.01	15	
2	2	36	1	31.59	31.38	-31.38	-.05	.56567	.21	.86	181	
2	2	37	1	21.41	21.54	21.49	1.48	.51609	-.12	-.48	3	
2	2	38	1	4.47	1.72	1.57	.69	.46804	2.75	3.87	23	
2	2	39	1	5.88	2.98	2.64	-1.39	.42206	2.89	5.53	333	
2	2	40	1	39.71	39.72	39.49	4.27	.37889	-.01	-.02	6	
2	2	41	1	39.89	39.32	39.31	.77	.33960	.57	1.65	1	
2	2	42	1	19.73	18.70	-18.69	-.49	.30571	1.03	5.62	182	
2	2	43	1	3.46	3.89	-3.83	.68	.27917	-.43	-.71	191	
2	2	44	1	69.33	71.29	71.28	1.55	.26223	-1.96	-4.00	1	
2	2	45	1	14.84	13.33	-13.33	.29	.25680	1.51	7.81	178	
2	2	46	1	4.89	6.45	6.37	1.01	.26360	-1.56	-3.50	9	
2	2	47	1	7.46	7.14	7.13	.27	.28173	.32	1.00	2	
2	2	48	1	21.23	20.97	20.94	-1.16	.30921	.26	1.16	357	
2	2	49	1	42.18	43.05	42.80	4.63	.34380	-.88	-2.09	6	
2	2	50	1	4.96	4.28	4.28	.11	.38359	.68	1.18	1	
2	2	51	1	26.21	26.80	-26.80	-.39	.42713	-.59	-2.36	181	
2	2	52	1	5.21	5.17	-5.17	.00	.47338	.04	.06	179	
2	2	53	1	4.99	4.20	4.09	.93	.52162	.79	1.12	12	
2	2	54	1	2.27	1.00	.88	.48	.57134	1.27	.78	28	
2	2	55	1	13.33	13.17	13.16	.48	.62220	.17	.42	2	
2	2	56	1	2.52	2.13	-2.13	-.06	.67394	.40	.22	182	
2	2	57	1	18.51	18.55	18.54	.49	.68578	-.03	-.10	1	
2	2	58	1	8.98	8.19	-8.18	-.37	.63587	.79	1.57	183	

M	K	L	GRP	FD	FC	A	B	SIN1/LW	DF	W*DF	ANGLE CALC	ANGLE STAT
2	5	-11	1	10.20	9.97	9.63	2.14	.58713	.33	.78	12	
2	5	-10	1	31.87	32.23	32.17	1.63	.53987	-.35	-1.46	3	
2	5	-9	1	20.75	20.98	20.88	.38	.49453	-.14	-.53	1	
2	5	-8	1	60.36	61.96	-61.92	-2.20	.45167	-1.61	-3.30	193	
2	5	-7	1	16.24	15.91	15.92	3.02	.41207	.43	1.58	11	
2	5	-6	1	2.76	2.08	-2.04	-.43	.37677	.68	.71	192	
2	5	-5	1	5.54	5.73	5.73	.17	.34707	-.18	-.40	1	
2	5	-4	1	42.42	44.23	44.22	.50	.32452	-1.91	-4.43	0	
2	5	-3	1	7.18	5.92	5.87	-.75	.31067	1.26	3.54	353	
2	5	-2	1	51.05	52.22	52.12	3.19	.30672	-1.17	-2.17	2	
2	5	-1	1	39.95	39.61	39.58	1.67	.31303	-.34	.86	0	
2	5	0	1	35.97	37.57	37.57	.46	.32901	-1.70	-4.92	0	
2	5	1	1	32.42	34.45	-34.42	-1.27	.35336	-2.03	-6.45	193	
2	5	2	1	19.46	19.50	-19.26	3.01	.38449	-.03	-.16	171	
2	5	3	1	30.12	31.17	-31.17	-.65	.42089	-1.05	-3.87	182	
2	5	4	1	11.02	9.94	9.94	.07	.46133	1.98	3.15	0	
2	5	5	1	11.63	11.22	11.22	.14	.50492	.46	1.33	0	
2	5	6	1	48.31	47.22	-47.20	-1.43	.55066	1.08	2.69	182	
2	5	7	1	39.09	38.60	38.49	2.98	.59829	.48	1.44	4	
2	5	8	1	35.29	34.79	34.77	1.07	.64732	.51	1.67	1	
2	5	9	1	16.38	16.22	16.22	.17	.69747	.16	1.67	1	
2	6	-12	1	16.55	15.62	-15.52	-1.71	.65927	.93	2.66	187	
2	6	-11	1	33.89	34.62	34.50	2.95	.61271	-.73	-2.74	9	
2	6	-10	1	5.60	3.87	3.81	.66	.56792	1.73	2.63	4	
2	6	-9	1	2.14	2.67	-2.66	-.25	.52536	-.53	-.35	186	
2	6	-8	1	67.65	68.96	-68.94	-1.78	.48562	-1.30	-2.53	182	
2	6	-7	1	14.80	15.17	16.13	1.15	.44944	-1.37	-4.81	4	
2	6	-6	1	8.21	7.10	7.06	.73	.41776	1.12	2.93	5	
2	6	-5	1	49.79	49.47	49.43	1.85	.39167	.32	.71	2	
2	6	-4	1	8.73	8.82	-8.79	.65	.37234	-.09	-.26	175	
2	6	-3	1	23.76	22.85	-22.79	-1.71	.36086	.91	3.95	185	
2	6	-2	1	112.30	112.44	112.34	4.71	.35798	-.13	-.23	2	
2	6	-1	1	15.32	15.10	15.09	.51	.36392	.23	.95	1	
2	6	0	1	32.97	35.41	-35.41	-.48	.37826	-2.44	-7.37	181	
2	6	1	1	34.00	34.55	-34.54	-.90	.40009	-.55	-1.83	182	
2	6	2	1	45.97	47.07	47.06	1.09	.42827	-1.10	-2.80	1	
2	6	3	1	22.68	22.18	-22.18	.42	.46164	.50	2.07	178	
2	6	4	1	3.20	.93	.25	.90	.49916	2.26	2.10	74	
2	6	5	1	13.25	14.49	14.48	.45	.53996	-1.24	-3.53	1	
2	6	6	1	15.59	15.63	-15.58	-1.32	.58336	-.05	-.14	185	
2	6	7	1	54.40	52.59	52.45	3.89	.62882	1.81	4.10	4	
2	6	8	1	2.51	2.38	2.38	.18	.67592	.13	.07	4	
2	6	9	1	2.48	3.65	-3.15	-1.84	.68623	-1.16	-.66	4	
2	7	-11	1	13.26	13.35	13.18	2.17	.64191	-.09	-.24	211	
2	7	-10	1	20.84	21.11	-21.11	-.30	.59962	-.27	-.93	9	
2	7	-9	1	4.70	4.69	4.65	.59	.55981	.02	.02	181	
2	7	-8	1	24.41	24.81	24.81	.64	.52306	-.40	-1.59	1	
2	7	-7	1	12.59	12.43	-12.41	-.63	.49004	.16	.49	183	
2	7	-6	1	15.08	15.55	-15.40	2.12	.46157	-.46	-1.66	172	
2	7	-5	1	46.75	45.38	45.33	2.04	.43852	1.38	3.46	2	
2	7	-4	1	5.11	3.55	3.54	.28	.42179	1.57	2.57	4	
2	7	-3	1	34.10	34.04	-33.97	-2.09	.41215	.06	.20	184	
2	7	-2	1	24.94	23.50	23.33	2.76	.41009	1.45	5.83	0	
2	7	-1	1	10.31	8.63	8.63	-.05	.41574	1.68	4.95	0	
2	7	0	1	7.59	7.79	7.79	.31	.42879	-.20	-.47	2	
2	7	1	1	11.76	12.56	12.56	.27	.44658	-.80	-2.42	1	

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H	K	L	GRP	FD	FC	A	E	SIN/H/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
2	7	2	1	11.57	11.56	11.84	-0.61	.47428	-0.29	-0.85	189	
2	7	3	1	51.04	51.58	51.49	2.08	.50499	-0.53	-1.24	358	
2	7	4	1	16.96	16.89	16.85	1.25	.53985	.06	.20	4	
2	7	5	1	12.05	11.60	11.60	-0.07	.57811	.45	1.18	181	
2	7	6	1	10.39	9.03	9.99	-0.84	.61915	1.36	3.02	355	
2	7	7	1	17.33	17.44	17.28	2.34	.66244	-0.11	-0.30	7	
2	8	7	1	20.93	20.89	20.85	1.27	.67427	.04	.12	3	
2	8	8	1	6.54	7.05	7.00	.78	.63443	-0.50	-0.77	6	
2	8	9	1	19.52	19.19	19.10	1.77	.59727	.33	1.19	5	
2	8	10	1	36.32	37.29	37.27	1.45	.56330	-0.47	-1.59	2	
2	8	11	1	14.16	14.02	13.87	-2.04	.53314	.14	.43	189	
2	8	12	1	8.27	7.87	7.43	2.62	.50746	.39	.90	19	
2	8	13	1	26.90	26.85	26.85	.00	.48697	.06	.21	179	
2	8	14	1	3.90	2.38	-2.38	.00	.47235	1.51	1.78	179	
2	8	15	1	17.08	16.62	16.59	-1.08	.46418	.45	1.67	184	
2	8	16	1	12.86	12.64	-12.63	.49	.46277	.21	.68	177	
2	8	17	1	22.72	23.15	23.13	.98	.46818	-0.43	-1.79	2	
2	8	18	1	67.51	67.57	67.54	1.99	.48019	-0.06	-0.09	1	
2	8	19	1	51.32	52.42	52.40	1.27	.49833	-1.10	-2.55	1	
2	8	20	1	31.59	31.44	-31.38	-1.90	.52194	.15	.49	184	
2	8	21	1	48.40	49.55	49.43	3.54	.55034	-1.15	-2.47	4	
2	8	22	1	9.52	9.06	9.05	.46	.58281	.46	.98	2	
2	8	23	1	11.44	10.61	-10.60	-0.22	.61873	.83	1.92	182	
2	8	24	1	16.74	16.37	-16.35	-0.77	.65752	.37	1.02	183	
2	8	25	1	18.71	18.58	-18.58	.06	.69870	.13	.36	179	
2	8	26	1	21.32	20.77	20.70	1.76	.67188	.55	1.69	4	
2	8	27	1	29.13	29.40	29.34	1.80	.63720	-0.27	-0.95	3	
2	8	28	1	9.23	8.31	8.30	.43	.60578	.92	2.03	2	
2	8	29	1	50.68	50.73	-50.66	-2.60	.57817	-0.05	-0.12	183	
2	8	30	1	30.68	30.07	29.99	2.14	.55492	.61	2.47	4	
2	8	31	1	10.25	10.27	-10.27	-0.08	.53660	-0.02	-0.06	181	
2	8	32	1	25.26	25.07	25.05	.87	.52374	.19	.77	1	
2	8	33	1	17.22	16.94	-16.94	.30	.51673	.27	.93	178	
2	8	34	1	4.61	4.04	-3.97	-0.74	.51582	.38	.47	1	
2	8	35	1	37.86	39.23	39.15	2.48	.52105	.12	.40	191	
2	8	36	1	34.37	34.24	34.20	1.75	.53222	.12	.40	3	
2	8	37	1	8.33	7.39	7.39	.35	.54898	.93	1.92	2	
2	8	38	1	19.58	20.15	-20.06	-1.91	.57084	-0.58	-1.94	186	
2	8	39	1	37.88	37.66	37.59	2.33	.59722	.22	.70	3	
2	8	40	1	20.45	20.32	-20.32	-0.14	.62758	.14	.44	181	
2	8	41	1	10.65	8.63	8.62	.48	.66135	2.01	4.30	3	
2	8	42	1	4.65	2.12	-2.11	.18	.69804	-1.73	-2.41	175	
2	8	43	1	2.54	4.27	4.23	.60	.67916	2.54	-0.95	8	
2	8	44	1	6.40	5.84	-5.83	.27	.65007	.56	.83	177	
2	8	45	1	7.92	6.47	6.44	-0.67	.62471	1.45	2.66	355	
2	8	46	1	17.99	18.25	18.22	.91	.60357	-0.26	-0.83	2	
2	8	47	1	7.85	5.87	5.82	.78	.58710	1.98	3.81	7	
2	8	48	1	25.71	25.07	25.01	1.81	.57569	.64	2.36	4	
2	8	49	1	26.22	24.72	24.69	1.19	.56966	1.50	5.58	2	
2	8	50	1	21.95	22.46	-22.36	-2.10	.56916	-0.51	-1.79	186	
2	8	51	1	8.10	3.14	-2.26	2.17	.57423	4.97	9.36	136	
2	8	52	1	2.32	1.26	1.17	.49	.58471	1.06	.64	22	
2	8	53	1	13.49	14.12	-14.12	-0.05	.60032	-0.63	-1.67	181	
2	8	54	1	7.05	7.16	-7.12	-0.78	.62067	-0.12	-0.18	187	
2	8	55	1	7.84	9.62	9.60	.50	.64531	-1.78	-2.78	2	
2	8	56	1	32.79	33.23	33.21	1.21	.67378	-0.43	-1.47	2	

H	K	L	GRP	FD	FC	A	B	SINTH/LM	DF	WDF	ANGLE CALC	ANGLE STAT
2	11	-6	1	19.21	19.53	19.49	1.30	.69581	-.32	-.93	3	
2	11	-7	1	28.33	27.80	27.79	1.00	.67246	.53	1.80	2	
2	11	-5	1	11.39	10.22	10.22	-.95	.65316	1.15	2.63	357	
2	11	-6	1	8.40	7.83	7.70	1.53	.63826	.55	.97	11	
2	11	-4	1	4.93	4.75	-4.61	1.15	.62808	.18	.21	166	
2	11	-3	1	28.97	27.82	27.81	.79	.62286	1.15	4.11	1	
2	11	-2	1	23.99	23.48	-23.37	-2.24	.62271	.51	1.74	186	
2	11	-1	1	16.37	15.77	-15.72	1.22	.62764	.60	1.75	175	
2	11	0	1	19.29	19.66	-29.66	-.15	.63754	-.37	-1.23	181	
2	11	1	1	7.58	7.61	27.59	1.15	.65217	-.03	-.12	2	
2	11	2	1	29.22	27.59	27.59	.88	.67124	.62	2.07	1	
2	11	3	1	26.35	25.62	-25.59	-1.17	.69436	.74	2.32	183	
2	11	-1	1	19.94	19.53	-19.41	-2.12	.70348	.42	1.19	187	
2	12	-5	1	30.52	28.29	28.24	1.70	.68994	2.23	7.40	3	
2	12	-4	1	5.35	7.96	7.94	.60	.68081	.39	.65	4	
2	12	-3	1	16.54	16.21	-16.20	.34	.67627	.34	.89	178	
2	12	-2	1	22.42	21.63	-21.61	-.89	.67642	.79	2.41	183	
2	12	-1	1	32.94	32.76	32.75	.77	.68124	.19	.60	1	
2	12	0	1	8.79	9.02	8.99	.78	.69064	-.23	-.38	4	
2	12	1	1	18.89	19.62	19.56	1.54	.70444	-.72	-1.95	4	
2	12	-1	1	18.13	18.28	18.22	1.54	.69303	-.15	-.41	4	
2	12	-2	1	33.37	33.57	-33.50	-2.23	.67689	-.21	-.72	194	
2	12	-3	1	2.45	.76	-.64	.41	.65514	1.69	.97	147	
2	12	-4	1	18.73	19.38	19.33	1.28	.65803	-.64	-1.93	3	
2	12	-5	1	2.83	1.99	-1.61	1.18	.65570	.90	.63	143	
2	12	-6	1	2.43	.52	.09	-.51	.65820	1.92	1.10	280	
2	12	-7	1	3.99	2.26	-2.20	.53	.66549	1.73	1.61	166	
2	12	-8	1	10.81	11.35	11.28	1.27	.67740	-.54	-1.11	6	
2	12	-9	1	8.24	6.85	-6.84	.34	.69370	1.39	2.43	177	
2	12	-10	1	2.52	3.05	3.05	.12	.68943	-.52	-.29	2	
2	12	-11	1	3.27	.95	.86	.41	.66398	2.31	1.78	25	
2	12	-12	1	39.57	39.92	39.85	2.42	.64248	-.36	-1.09	3	
2	12	-13	1	29.57	30.79	-30.72	-2.11	.62534	-1.22	-4.39	184	
2	12	-14	1	17.56	17.40	17.37	1.13	.61291	.15	.47	3	
2	12	-15	1	24.52	24.89	24.82	1.90	.60549	-.36	-1.30	4	
2	12	-16	1	5.80	6.20	6.12	1.01	.60327	-.40	-.58	9	
2	12	-17	1	16.91	16.51	16.49	.92	.60631	.40	1.22	3	
2	12	-18	1	40.88	39.67	-39.65	-1.30	.61451	1.21	3.31	182	
2	12	-19	1	3.74	2.12	-2.08	.40	.62769	.99	1.57	169	
2	12	-20	1	4.84	3.86	-3.83	.45	.64554	.99	1.17	173	
2	12	-21	1	21.72	19.81	19.75	1.57	.66768	1.91	6.15	4	
2	12	-22	1	45.73	45.74	-45.68	-2.30	.69371	.04	.12	183	
2	12	-23	1	27.49	28.18	-28.11	-1.94	.67337	-.70	-2.29	184	
2	12	-24	1	4.31	.98	-.95	.25	.64266	3.32	3.58	165	
2	12	-25	1	34.36	34.71	34.68	1.61	.61558	-.35	-1.16	2	
2	12	-26	1	6.74	5.40	-4.97	2.11	.59264	1.35	2.29	157	
2	12	-27	1	3.31	5.85	-5.82	-.58	.57434	-2.53	-2.21	186	
2	12	-28	1	36.86	37.74	37.73	.91	.56112	-.88	-2.75	1	
2	12	-29	1	24.54	25.24	25.21	1.10	.55335	-.70	-2.68	2	
2	12	-30	1	3.74	3.16	-3.16	.08	.55126	.58	.62	178	
2	12	-31	1	4.00	1.96	1.01	1.68	.55491	2.04	2.36	178	
2	12	-32	1	22.88	22.65	-22.53	-2.27	.56420	.23	.87	186	
2	12	-33	1	7.83	7.60	-7.59	.36	.57886	.23	.48	177	
2	12	-34	1	4.21	1.23	.18	1.21	.59848	2.99	3.57	81	
2	12	-35	1	2.28	1.69	1.10	1.29	.62260	.59	.36	49	
2	12	-36	1	6.11	7.02	7.01	-.20	.65072	-.91	-1.30	359	

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H	K	L	GRP	FD	FC	A	B	SINTH/LW	DF	W*DF	ANGLE CALC	ANGLE STAT
3	-10	5	1	17.99	18.10	18.08	.69	.68234	-.10	-.30	182	
3	-9	-11	1	17.34	18.15	-18.15	-.00	.70415	-.82	-2.15	181	
3	-9	-10	1	25.26	25.73	25.53	3.14	.65565	-.47	-1.52	187	
3	-9	-9	1	4.06	3.72	-3.44	-1.42	.62993	.33	.32	203	
3	-9	-8	1	21.98	22.04	-22.03	.43	.59720	-.05	-.19	178	
3	-9	-7	1	9.87	9.99	9.87	1.55	.56829	-.13	-.30	182	
3	-9	-6	1	24.43	25.13	25.10	1.07	.54371	-.70	-2.68	182	
3	-9	-5	1	39.76	40.36	40.34	1.24	.52405	-.69	-1.85	182	
3	-9	-4	1	46.69	47.45	-47.43	-1.45	.50990	-.76	-1.74	182	
3	-9	-3	1	2.11	1.35	-1.85	-.01	.50171	.26	.17	181	
3	-9	-2	1	30.41	30.45	30.44	.73	.49978	-.04	-.15	181	
3	-9	-1	1	30.61	30.57	30.45	2.69	.50418	.04	.14	185	
3	-9	0	1	28.91	28.13	-28.06	-2.01	.51476	.78	3.02	185	
3	-9	1	1	30.37	30.50	30.48	1.09	.53113	-.11	-.40	185	
3	-9	2	1	25.07	25.98	25.90	1.95	.55279	-.90	-3.55	178	
3	-9	3	1	22.94	22.48	-22.47	.44	.57914	.46	1.68	179	
3	-9	4	1	32.43	32.65	32.62	1.40	.60958	-.22	-.79	185	
3	-9	5	1	15.84	15.15	-15.10	-1.19	.64352	.69	1.99	185	
3	-9	6	1	15.62	16.58	-16.58	.05	.68055	-.95	-2.49	179	
3	-8	-11	1	9.69	9.54	9.47	1.22	.66655	.15	.29	183	
3	-8	-10	1	21.54	23.01	22.85	2.68	.62603	-1.47	-4.63	183	
3	-8	-9	1	15.33	16.08	-16.07	-.71	.58813	-.76	-2.22	183	
3	-8	-8	1	2.81	1.43	-1.41	.22	.55338	1.38	1.13	171	
3	-8	-7	1	27.44	28.00	-28.00	.03	.52242	-.56	-2.26	179	
3	-8	-6	1	2.49	2.28	-2.26	-.32	.49594	.20	.16	189	
3	-8	-5	1	56.44	59.61	59.55	2.83	.47470	-3.18	-6.31	183	
3	-8	-4	1	62.67	64.85	-64.81	-2.41	.45944	-2.18	-4.42	183	
3	-8	-3	1	9.47	9.83	9.82	.25	.45075	.14	.30	183	
3	-8	-2	1	50.60	50.46	50.42	1.98	.44903	.14	.98	182	
3	-8	-1	1	75.22	74.54	74.48	2.91	.45434	.66	2.14	182	
3	-8	0	1	14.70	15.28	-15.27	-.50	.46645	-.58	-2.14	182	
3	-8	1	1	8.91	8.59	-8.59	.30	.48484	.31	.84	177	
3	-8	2	1	25.42	25.75	25.73	.92	.50885	-.33	-1.31	177	
3	-8	3	1	6.99	7.05	7.05	.09	.53771	-.06	-.13	183	
3	-8	4	1	3.66	2.33	1.23	1.98	.57069	1.32	1.41	183	
3	-8	5	1	71.73	73.14	-73.08	-2.85	.60712	-1.41	-2.37	183	
3	-8	6	1	10.07	10.40	10.39	.47	.64642	-.33	-.70	183	
3	-8	7	1	17.49	17.23	17.16	1.51	.68810	.27	.75	183	
3	-8	-1	1	15.62	16.24	16.23	.66	.67605	-.62	-1.59	183	
3	-8	-11	1	36.35	36.81	36.78	1.38	.63142	-.46	-1.56	183	
3	-8	-10	1	2.30	.72	-.45	.56	.58881	-.46	-1.56	183	
3	-8	-9	1	7.84	7.40	-7.37	.60	.54869	.45	.96	128	
3	-8	-8	1	7.15	5.85	-5.80	-.76	.51163	.45	.90	175	
3	-8	-7	1	5.26	3.53	-3.50	-.44	.47836	1.30	2.59	188	
3	-8	-6	1	19.21	19.58	-19.58	.18	.44972	-.37	-.83	188	
3	-8	-5	1	14.69	14.21	13.77	3.49	.42663	.48	1.81	179	
3	-8	-4	1	19.77	19.64	19.59	-1.40	.41003	.13	.59	356	
3	-8	-3	1	28.35	27.91	27.90	1.01	.40075	.44	1.66	356	
3	-8	-2	1	13.43	12.56	12.45	1.71	.39927	.87	3.21	172	
3	-8	-1	1	5.26	5.09	-5.04	.70	.40570	.17	.32	172	
3	-7	0	1	37.79	39.17	39.14	1.49	.41966	-.17	-.40	172	
3	-7	1	1	13.88	13.96	-13.92	-1.13	.44045	-.08	-.31	185	
3	-7	2	1	9.62	9.64	-9.63	-.33	.46715	-.02	-.06	182	
3	-7	3	1	19.95	20.44	20.44	.66	.49881	-.50	-1.98	182	
3	-7	4	1	15.05	16.13	15.92	2.61	.53455	-1.08	-3.58	182	
3	-7	5	1	27.92	28.10	-28.05	-1.72	.57361	-.18	-.70	184	

H	K	L	GRP	FO	FC	A	B	SIN/H/LW	DF	W*DF	ANGLE CALC	ANGLE STAT
3	-7	6	1	9.43	9.85	9.81	.92	.61536	-1.42	-2.86	5	
3	-7	7	1	9.14	8.69	8.55	1.58	.65929	.45	.88	5	
3	-6	-13	1	9.45	9.43	9.42	-.45	.69379	.02	.04	358	
3	-6	-12	1	12.63	13.15	-13.16	-.08	.64577	-.33	-.79	181	
3	-6	-11	1	9.94	9.15	9.14	.05	.59921	.79	1.80	0	
3	-5	-10	1	4.59	4.99	-4.96	-.59	.55447	-.40	-.50	197	
3	-6	-9	1	64.44	64.71	64.62	3.47	.51202	-.27	-.51	3	
3	-5	-8	1	9.31	9.09	-9.00	-1.27	.47250	.22	.55	189	
3	-6	-7	1	15.70	17.71	-17.71	.03	.43668	-2.01	-7.49	179	
3	-6	-6	1	17.07	16.61	16.55	1.42	.40556	.46	1.92	4	
3	-6	-5	1	5.77	4.83	3.90	2.85	.38029	.95	1.96	36	
3	-6	-4	1	4.41	3.91	3.89	-.35	.36210	.51	.98	355	
3	-6	-3	1	39.46	40.02	-40.02	-.15	.35208	-.56	-1.62	181	
3	-6	-2	1	9.60	9.21	9.21	.15	.35094	.39	1.34	0	
3	-4	-1	1	4.34	4.47	4.44	-.48	.35876	-.13	-.23	354	
3	-6	0	1	65.03	67.60	67.51	3.48	.37498	-.13	-4.27	2	
3	-6	1	1	49.93	52.12	-52.07	-2.20	.39858	-2.19	-4.86	183	
3	-6	2	1	5.47	3.77	-3.76	.27	.42834	1.70	3.47	175	
3	-6	3	1	40.45	42.48	42.43	2.03	.46307	-2.02	-5.68	2	
3	-6	4	1	46.93	48.53	48.47	2.30	.50174	-1.60	-4.29	2	
3	-6	5	1	17.19	18.13	18.13	.08	.54351	-.94	-3.26	0	
3	-6	6	1	7.61	6.30	-6.30	.12	.58772	1.31	2.59	178	
3	-6	7	1	4.29	2.86	2.83	.42	.63387	1.43	1.54	8	
3	-6	8	1	18.26	17.58	-17.58	-.42	.68155	.68	1.94	182	
3	-5	-13	1	7.95	7.03	-7.00	.62	.66850	.93	1.52	174	
3	-5	-12	1	5.23	1.64	1.61	-.29	.61883	3.60	4.55	350	
3	-5	-11	1	7.14	6.34	-6.34	-.20	.57040	.80	1.52	182	
3	-5	-10	1	19.26	18.10	19.09	.37	.52356	.16	.57	1	
3	-5	-9	1	61.61	61.57	61.35	4.64	.47878	.04	.08	4	
3	-5	-8	1	10.39	10.89	10.82	-1.22	.43668	-.50	-1.40	187	
3	-5	-7	1	39.30	39.48	39.47	.73	.39812	-.17	-.52	1	
3	-5	-6	1	11.10	12.71	-12.68	.95	.36424	-1.62	-5.76	175	
3	-5	-5	1	5.52	5.61	5.60	.37	.33643	-.09	-.20	3	
3	-5	-4	1	19.28	18.02	-17.98	1.22	.31632	1.26	6.71	176	
3	-5	-3	1	50.38	48.89	-48.88	-1.13	.30542	1.49	2.75	182	
3	-5	-2	1	53.44	52.35	-52.34	-.82	.30472	1.09	2.03	181	
3	-5	-1	1	12.83	12.73	12.72	.44	.31429	.10	.45	2	
3	-5	0	1	140.67	143.94	143.86	4.65	.33325	-3.27	-5.95	1	
3	-5	1	1	29.77	30.78	-30.74	-1.59	.36012	-1.01	-3.96	183	
3	-5	2	1	27.56	27.60	27.59	.84	.39328	-.04	-.15	1	
3	-5	3	1	32.32	31.76	31.72	1.72	.43128	.55	1.92	3	
3	-5	4	1	48.87	50.30	50.29	.86	.47296	-1.43	-3.45	0	
3	-5	5	1	3.92	3.63	3.63	1.44	.51743	.30	.35	23	
3	-5	6	1	33.03	34.19	-34.15	-1.58	.56402	-1.16	-3.83	183	
3	-5	7	1	6.43	6.30	6.29	-.26	.61226	.13	.21	358	
3	-5	8	1	6.75	6.67	6.63	.67	.66179	.08	.12	5	
3	-4	-14	1	5.39	5.62	-5.58	-.64	.69880	-.23	-.25	187	
3	-4	-13	1	22.40	22.19	21.95	3.24	.64684	.21	.67	8	
3	-4	-12	1	7.10	5.94	-5.93	-.33	.59568	1.17	2.00	184	
3	-4	-11	1	6.50	6.87	6.87	-.02	.54554	-.38	-.64	0	
3	-4	-10	1	52.15	51.83	51.81	1.81	.49674	.33	.76	1	
3	-4	-9	1	15.79	15.16	14.88	2.86	.44970	.64	2.29	10	
3	-4	-8	1	42.60	44.11	-44.10	-.81	.40506	-1.51	-3.92	182	
3	-4	-7	1	15.09	15.10	15.10	.20	.36368	-.01	-.03	0	
3	-4	-6	1	36.43	38.02	38.02	.20	.32681	-1.60	-4.70	0	
3	-4	-5	1	24.67	24.53	-24.51	-.98	.29614	.14	.58	183	

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H	K	L	GRP	FD	FC	A	B	SINTH/LM	DF	WDF	ANGLE CALC	ANGLE STAT
3	-4	-4	1	59.666	54.92	58.40	3.61	.27376	.75	1.59	182	
3	-4	-3	1	6.97	9.29	-9.23	-1.05	.26181	-.31	-1.31	3	
3	-4	-2	1	8.75	9.21	9.21	.19	.26171	-.44	-1.82	187	
3	-4	-1	1	20.71	19.39	19.33	1.44	.27349	1.32	6.11	4	
3	-4	0	1	26.66	24.89	24.77	2.44	.29572	1.78	7.03	5	
3	-4	1	1	32.77	34.07	34.07	.09	.32628	-1.29	-4.40	0	
3	-4	2	1	10.13	9.82	9.82	.24	.36307	.31	1.10	1	
3	-4	3	1	1.90	1.30	-1.29	-.13	.40439	.60	.44	186	
3	-4	4	1	8.59	8.57	-8.56	-.53	.44899	.01	.04	184	
3	-4	5	1	58.40	59.70	59.59	3.48	.49599	-1.30	-2.50	3	
3	-4	6	1	16.29	15.21	-15.12	-1.68	.54477	1.08	3.63	197	
3	-4	7	1	13.51	12.62	-12.62	.02	.59489	.89	2.51	179	
3	-4	8	1	33.64	32.97	32.92	1.83	.64604	.66	2.31	3	
3	-4	9	1	24.48	24.31	24.25	1.69	.69799	.16	.51	3	
3	-3	-14	1	35.00	34.31	-34.16	-.73	.56220	.84	2.89	182	
3	-3	-13	1	51.77	51.37	51.17	4.47	.52917	.40	1.02	4	
3	-3	-12	1	4.40	2.87	2.80	-.64	.57676	1.53	1.82	348	
3	-3	-11	1	24.58	24.35	-24.35	-.31	.52518	.23	.90	181	
3	-3	-10	1	25.13	24.66	-24.66	.12	.47468	.47	1.99	179	
3	-3	-9	1	10.81	10.36	10.35	.27	.42566	.45	1.35	1	
3	-3	-8	1	30.27	33.05	33.58	1.91	.37869	-2.78	-4.60	1	
3	-3	-7	1	34.03	33.58	33.58	-.36	.33462	.45	1.29	181	
3	-3	-6	1	22.31	21.31	21.31	-.23	.29477	.99	4.33	0	
3	-3	-5	1	45.75	44.63	44.63	.30	.26107	1.11	2.24	0	
3	-3	-4	1	136.87	137.10	137.00	5.32	.23618	-.23	-.51	2	
3	-3	-3	1	7.31	9.59	-9.51	-1.27	.22306	-2.29	-8.96	188	
3	-3	-2	1	3.94	1.09	1.04	.35	.22379	2.85	6.71	18	
3	-3	-1	1	5.95	4.14	-4.03	.94	.23825	1.81	5.85	166	
3	-3	0	1	83.65	84.85	-84.85	-.40	.26419	-1.20	-2.47	181	
3	-3	1	1	49.11	51.17	51.13	1.91	.29863	-2.06	-3.86	2	
3	-3	2	1	7.71	7.41	-7.35	-.94	.33899	.30	.93	188	
3	-3	3	1	12.55	11.59	-11.58	-.51	.38341	.96	3.70	183	
3	-3	4	1	5.93	5.06	-5.05	.34	.43063	.87	1.72	176	
3	-3	5	1	100.96	101.33	101.24	4.34	.47982	-.37	-.53	2	
3	-3	6	1	7.70	7.37	-7.32	-.89	.53045	.23	.70	187	
3	-3	7	1	2.23	.90	-.65	.61	.58213	.33	.84	136	
3	-3	8	1	13.57	13.66	13.61	1.17	.63460	-1.10	-.25	4	
3	-3	9	1	7.75	7.44	7.44	.05	.68769	.31	.49	0	
3	-2	-14	1	2.50	2.00	-1.99	-.07	.66964	.50	.28	183	
3	-2	-13	1	8.33	8.24	7.89	2.37	.61583	.08	.16	16	
3	-2	-12	1	25.88	25.91	-25.89	-.94	.56252	-.03	-.12	183	
3	-2	-11	1	7.24	7.29	-7.29	.11	.50987	-.06	-.11	179	
3	-2	-10	1	28.97	28.43	-28.43	-.38	.45810	.54	2.12	181	
3	-2	-9	1	27.61	27.90	27.88	-.80	.40754	-.28	-1.05	359	
3	-2	-8	1	91.55	90.88	90.77	4.56	.35872	.66	1.15	2	
3	-2	-7	1	11.32	11.67	11.67	-.14	.31245	-.34	-1.37	0	
3	-2	-6	1	8.40	8.22	-8.22	-.02	.27004	.18	.64	181	
3	-2	-5	1	71.96	68.63	68.62	1.11	.23360	3.33	7.29	0	
3	-2	-4	1	79.01	77.83	77.76	3.23	.20632	1.18	2.77	2	
3	-2	-3	1	43.83	42.38	-42.37	-.66	.19214	1.45	3.47	181	
3	-2	-2	1	8.39	6.72	-6.72	-.04	.19397	1.67	7.72	181	
3	-2	-1	1	37.18	36.79	-36.79	-.41	.21137	.39	1.25	181	
3	-2	0	1	2.40	2.31	2.14	-.89	.24101	.09	.12	338	
3	-2	1	1	55.42	60.03	59.88	4.20	.27901	-4.61	-9.08	4	
3	-2	2	1	59.37	61.44	-61.42	-1.32	.32242	-2.07	-3.78	182	
3	-2	3	1	9.39	9.64	-9.64	.06	.36935	-.25	-.80	179	

H	K	L	GRP	FJ	FC	A	B	SINTH/LM	DF	WARR	ANGLE CALC	ANGLE STAT
3	-2	4	1	40.76	40.81	40.78	1.66	.41861	-.05	-.12	2	
3	-2	5	1	45.47	46.35	36.31	2.66	.44947	-.88	-1.27	1	
3	-2	6	1	9.58	8.82	-9.82	-.02	.52146	.76	1.94	181	
3	-2	7	1	7.83	4.54	8.54	.05	.57428	-.71	-1.41	0	
3	-2	8	1	4.61	4.29	-4.29	-.13	.62771	.32	.37	182	
3	-2	9	1	12.37	9.97	9.96	-.32	.68161	2.41	5.72	359	
3	-1	14	1	4.93	5.91	5.91	.09	.66136	-1.01	-1.07	0	
3	-1	13	1	2.54	5.54	-5.54	-.09	.60712	-3.00	-1.87	181	
3	-1	12	1	2.21	2.44	-2.05	1.33	.55331	-.23	-.15	147	
3	-1	11	1	21.86	22.17	22.16	.81	.50007	-.32	-1.24	2	
3	-1	10	1	2.08	1.04	1.04	-.06	.44758	1.04	.70	357	
3	-1	9	1	3.07	.58	.37	-.44	.39616	2.49	2.64	310	
3	-1	8	1	46.31	46.03	45.78	4.79	.34629	.29	.68	5	
3	-1	7	1	21.33	18.69	18.68	-.72	.29872	2.64	12.09	358	
3	-1	6	1	14.96	13.97	13.97	-.03	.25476	.99	5.26	0	
3	-1	5	1	30.26	25.02	-25.02	.60	.21663	5.23	15.71	178	
3	-1	4	1	13.11	11.20	-11.19	-.32	.18789	1.91	11.27	182	
3	-1	3	1	18.11	17.63	17.52	1.97	.17329	.48	2.22	6	
3	-1	2	1	14.05	14.96	14.96	.17	.17638	-.91	-5.09	0	
3	-1	1	1	31.42	30.49	30.49	-.16	.19632	.93	3.00	0	
3	-1	0	1	20.27	18.77	18.77	.09	.22875	1.51	7.05	0	
3	-1	1	1	91.71	91.76	91.64	4.56	.26919	-.04	-.08	2	
3	-1	2	1	19.64	20.36	-20.34	-.84	.31456	-.72	-3.72	183	
3	-1	3	1	28.36	27.84	27.84	.37	.36303	.52	1.95	0	
3	-1	4	1	5.91	5.74	-5.70	.65	.41350	.17	.33	173	
3	-1	5	1	41.50	40.98	-40.98	-.68	.46532	.51	1.45	181	
3	-1	6	1	49.40	49.42	49.37	2.19	.51810	-.02	-.04	2	
3	-1	7	1	22.16	21.25	21.25	-.45	.57155	.91	3.27	359	
3	-1	8	1	8.35	8.00	-7.98	-.54	.62552	.36	.69	184	
3	-1	9	1	12.75	11.92	11.91	.57	.67987	.83	1.99	2	
3	-1	13	1	15.09	15.32	15.31	.36	.65750	-.23	-.60	1	
3	-1	12	1	12.15	11.53	-11.48	-1.08	.60324	.62	1.59	186	
3	-1	11	1	64.61	65.11	64.97	4.30	.54939	-.50	-.90	3	
3	-1	10	1	18.36	18.30	18.29	.68	.49610	.06	.20	2	
3	-1	9	1	2.08	.44	.33	-.29	.44357	1.64	1.11	320	
3	-1	8	1	72.46	73.67	-73.67	-.74	.39211	-1.22	-1.96	181	
3	-1	7	1	38.53	37.98	37.89	2.53	.34219	.55	1.60	3	
3	-1	6	1	13.46	11.10	-11.09	-.35	.29460	2.36	10.94	182	
3	-1	5	1	54.60	50.96	-50.96	.04	.25067	3.64	7.59	179	
3	-1	4	1	5.60	2.13	-2.12	-.20	.21269	-.56	-.50	186	
3	-1	3	1	2.19	1.12	-.36	-1.06	.18436	1.07	1.39	252	
3	-1	2	1	259.60	262.85	262.79	5.60	.17056	-3.25	-5.96	1	
3	-1	1	1	19.98	20.93	-20.93	-.25	.17478	-.95	-4.04	181	
3	0	0	1	36.90	35.41	35.41	.05	.19585	1.48	4.86	0	
3	0	0	1	31.84	32.83	32.82	.87	.22916	-.99	-3.55	1	
3	0	0	1	73.36	74.88	74.84	2.43	.27024	-1.52	-3.09	1	
3	0	2	1	17.13	17.94	-17.94	-.35	.31606	-.81	-4.07	182	
3	0	3	1	32.70	31.81	-31.81	-.11	.36484	.89	3.16	181	
3	0	4	1	4.31	3.75	3.75	-.25	.41554	.56	.84	181	
3	0	5	1	46.21	46.87	-46.85	-1.37	.46754	-.66	-1.61	182	
3	0	6	1	81.81	82.53	82.42	4.23	.52045	-.72	-.97	2	
3	0	7	1	3.82	.99	-.76	-.63	.57402	2.84	2.94	220	
3	0	8	1	13.76	13.73	13.73	.25	.62807	.04	.09	1	
3	0	9	1	3.18	2.31	2.09	.98	.68250	.85	.62	25	
3	0	14	1	20.08	20.68	20.67	.47	.65817	-.60	-1.84	1	
3	0	13	1	16.11	16.48	16.47	-.71	.60427	-.37	-1.10	358	

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H	K	L	CRP	FD	FC	A	B	SINTH/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
3	1	-12	1	42.12	42.06	41.86	4.06	.55087	.06	.17	133	
3	1	-11	1	18.17	18.52	-19.50	-0.73	.49811	-.34	-1.24	133	
3	1	-10	1	12.92	12.14	-12.14	-.21	.44624	.78	2.52	182	
3	1	-9	1	30.50	29.44	-29.44	-.27	.39560	1.06	4.08	131	
3	1	-8	1	23.33	22.30	-22.30	-.41	.34673	1.02	4.60	182	
3	1	-7	1	27.98	28.25	28.18	1.95	.30069	-1.27	-1.06	3	
3	1	-6	1	68.54	67.35	67.34	1.26	.25930	1.19	2.45	1	
3	1	-5	1	10.12	7.90	7.69	-.23	.22247	2.22	10.07	359	
3	1	-4	1	11.63	8.72	8.70	-.54	.19652	2.91	15.45	357	
3	1	-3	1	162.35	160.35	160.26	5.44	.18466	2.00	5.17	1	
3	1	-2	1	35.54	33.05	33.04	-.62	.18956	2.49	8.72	359	
3	1	-1	1	27.43	28.23	-28.23	-.22	.21004	-.75	-2.74	181	
3	1	0	1	11.41	10.41	10.41	.27	.24219	1.00	4.89	1	
3	1	1	1	39.38	41.08	41.08	-.10	.28203	-2.71	-7.28	0	
3	1	2	1	28.54	28.15	28.07	2.14	.32678	.39	1.46	4	
3	1	3	1	11.12	11.39	-11.39	-.13	.37467	-.27	-.95	181	
3	1	4	1	23.57	20.57	-20.56	-.41	.42464	.47	2.05	182	
3	1	5	1	21.04	21.16	23.16	4.00	.47604	.41	1.73	0	
3	1	6	1	56.20	55.25	55.11	4.00	.52846	.95	2.14	4	
3	1	7	1	39.29	38.81	-38.80	-.97	.58161	.48	1.36	182	
3	1	8	1	11.37	11.40	11.39	.34	.63531	-.03	-.06	1	
3	1	9	1	9.88	9.51	9.49	.59	.68944	.37	.68	3	
3	1	-1	1	11.63	11.54	-11.53	-.41	.66333	.09	.20	183	
3	1	-2	1	15.44	14.43	14.41	-.66	.61019	1.01	2.91	358	
3	1	-3	1	20.07	20.06	19.96	2.00	.55770	.01	.03	5	
3	1	-4	1	13.50	13.13	-13.12	-.38	.50603	.37	1.14	182	
3	1	-5	1	12.07	12.45	12.43	.75	.45547	-.38	-1.16	3	
3	1	-6	1	53.39	54.14	54.14	.82	.40645	-.75	-1.63	0	
3	1	-7	1	21.87	21.20	-21.15	-1.41	.35958	.67	3.17	184	
3	1	-8	1	58.39	58.13	57.96	4.35	.31583	.26	.47	4	
3	1	-9	1	51.83	49.13	49.12	.69	.27667	2.70	5.28	4	
3	1	-5	1	1.80	2.98	-2.98	-.17	.24433	-1.18	-1.07	0	
3	1	-4	1	20.20	19.18	19.18	-.31	.22182	1.02	4.68	184	
3	1	-3	1	22.34	20.35	20.27	1.73	.21227	1.99	7.89	4	
3	1	-2	1	20.26	16.90	-16.90	.00	.21741	3.36	15.91	179	
3	1	-1	1	15.12	17.34	17.33	.61	.23628	-2.22	-12.39	2	
3	1	0	1	16.83	19.14	19.14	.16	.26597	-2.31	-12.71	0	
3	1	1	1	27.02	27.04	-27.01	-1.34	.30333	-.02	-.09	183	
3	1	2	1	123.18	126.35	126.25	4.98	.34587	-3.17	-5.63	2	
3	1	3	1	21.73	20.96	20.96	.16	.39191	.77	3.60	0	
3	1	4	1	7.85	8.21	-8.21	-.16	.44036	-.37	-.88	182	
3	1	5	1	3.62	1.34	-1.22	.53	.49050	2.28	2.56	156	
3	1	6	1	14.06	13.55	13.48	1.36	.54186	.51	1.56	5	
3	1	7	1	10.01	8.62	-8.62	.09	.59413	1.39	3.14	179	
3	1	8	1	7.00	7.15	-7.15	-.04	.64708	.28	.45	1	
3	1	9	1	2.53	.84	-.81	-.19	.70057	1.69	.94	181	
3	1	-1	L	4.64	1.63	-1.62	-.15	.67288	3.01	3.20	194	
3	1	-2	L	30.75	30.66	-30.66	-.13	.62087	.09	.32	186	
3	1	-3	L	15.84	16.33	16.33	.43	.56969	-.49	-1.51	181	
3	1	-4	L	57.98	57.93	57.88	2.35	.51958	.05	.12	0	
3	1	-5	L	66.13	67.42	67.39	1.94	.47088	-1.29	-2.57	1	
3	1	-6	L	31.80	30.78	30.78	.45	.42409	1.02	3.76	2	
3	1	-7	L	29.44	29.91	-29.87	-.57	.37990	-.47	-1.84	0	
3	1	-8	L	97.86	97.40	97.29	4.50	.33933	.47	.83	2	
3	1	-9	L	49.68	48.79	-48.78	-.78	.30385	.89	2.32	181	
3	1	-5	L	11.48	10.87	-10.86	-.30	.27542	.61	2.66	182	

H	K	L	GRP	FD	FC	A	B	SINTH/LM	DF	WDF	ANGLE CALC	ANGLE STAT
3	3	-4	1	72.76	71.57	-71.57	-.41	.25639	1.19	2.49	181	
3	3	-3	1	34.83	32.12	-32.11	-.70	.24893	2.71	7.62	182	
3	3	-2	1	96.01	93.43	95.39	2.72	.25407	-.42	-.89	1	
3	3	-1	1	48.49	49.65	49.66	1.22	.27105	-1.19	-2.34	1	
3	3	0	1	15.29	14.51	14.51	.15	.29796	.78	3.87	0	
3	3	1	1	29.16	30.44	-30.43	-.74	.33229	-1.29	-4.70	182	
3	3	2	1	163.51	165.79	166.72	4.88	.37204	-3.29	-5.59	1	
3	3	3	1	22.34	22.94	-22.94	-.59	.41564	-.60	-2.71	182	
3	3	4	1	7.80	6.91	6.91	-.02	.46201	.89	2.05	0	
3	3	5	1	3.49	2.31	-2.31	.05	.51040	1.18	1.21	178	
3	3	6	1	22.71	23.03	-23.02	-.88	.56027	-.33	-1.19	183	
3	3	7	1	26.00	25.71	25.61	2.21	.61128	.29	1.02	4	
3	3	8	1	2.48	1.18	1.18	.11	.66315	1.30	.73	5	
3	3	-13	1	13.45	12.69	12.65	1.11	.68465	.75	1.82	5	
3	3	-12	1	6.47	7.67	7.63	.71	.63606	-1.20	-1.75	5	
3	3	-11	1	22.32	22.99	22.97	-.96	.58653	-.67	-2.32	358	
3	3	-10	1	53.85	54.96	54.84	3.70	.53834	-1.11	-2.46	3	
3	3	-9	1	10.96	9.53	9.48	.99	.49189	1.43	4.02	5	
3	3	-8	1	5.30	4.68	4.67	-.31	.44772	.62	.98	357	
3	3	-7	1	12.86	13.77	13.74	-.91	.40657	-.91	-3.18	357	
3	3	-6	1	31.45	32.03	31.98	1.84	.36946	-.58	-1.99	3	
3	3	-5	1	48.67	47.69	-47.69	-.25	.33772	.99	2.42	181	
3	3	-4	1	7.00	7.38	7.31	1.03	.31298	-.38	-1.04	8	
3	3	-3	1	3.16	.67	.57	.35	.29701	2.49	3.59	31	
3	3	-2	1	48.98	43.23	-48.20	-1.54	.29125	.75	1.42	182	
3	3	-1	1	157.75	158.47	158.40	4.70	.29629	-.72	-1.41	1	
3	3	0	1	34.10	34.17	34.17	.73	.31161	-.07	-.22	1	
3	3	1	1	29.98	30.95	-30.95	-.46	.33580	-.98	-3.57	181	
3	3	2	1	3.39	.58	.48	-.33	.36713	2.81	3.73	326	
3	3	3	1	58.50	60.56	60.53	1.84	.40392	-2.05	-3.23	1	
3	3	4	1	11.37	9.26	9.26	.22	.44483	2.10	6.40	1	
3	3	5	1	5.45	4.61	-4.59	.39	.48882	.84	1.35	175	
3	3	6	1	10.10	9.05	9.05	.03	.52514	1.05	2.60	0	
3	3	7	1	22.58	22.60	22.59	-.74	.58322	-.02	-.07	359	
3	3	8	1	65.68	63.03	62.90	3.96	.63268	2.65	4.30	3	
3	3	-14	1	19.12	18.21	-18.21	-.23	.68320	.91	2.57	181	
3	3	-13	1	24.33	24.80	24.74	1.78	.70438	-.47	-1.44	4	
3	3	-12	1	13.87	14.15	14.15	.48	.65545	-.28	-.71	1	
3	3	-11	1	25.70	26.14	-26.05	-2.10	.60781	-.44	-1.55	185	
3	3	-10	1	27.57	27.58	27.40	3.10	.56179	-.01	-.02	6	
3	3	-9	1	8.74	8.93	-8.92	-.31	.51781	-.19	-.43	182	
3	3	-8	1	21.09	20.70	-20.70	-.09	.47644	.39	1.56	181	
3	3	-7	1	34.09	34.76	34.76	.42	.43843	.39	1.56	181	
3	3	-6	1	2.27	.89	-.84	-.30	.40472	-.67	-2.23	0	
3	3	-5	1	68.59	67.40	67.36	2.30	.37647	1.38	1.07	200	
3	3	-4	1	43.88	43.18	43.14	1.82	.35498	1.19	1.95	2	
3	3	-3	1	53.97	52.31	52.31	.77	.34153	.69	1.61	2	
3	3	-2	1	25.65	26.02	-25.96	-1.69	.33709	1.65	2.85	0	
3	3	-1	1	9.64	7.93	7.20	3.32	.34200	-.37	-1.39	184	
3	3	0	1	9.93	10.36	-10.35	-.49	.35589	1.71	5.78	24	
3	3	1	1	32.73	33.79	33.79	.11	.37775	-.43	-1.37	183	
3	3	2	1	23.88	24.24	24.24	.08	.44032	-.35	-3.23	0	
3	3	3	1	64.71	65.79	-65.77	-.08	.44027	-1.08	-1.56	182	
3	3	4	1	72.08	72.78	72.72	2.88	.47847	-.70	-1.60	182	
3	3	5	1	55.31	55.71	55.69	1.43	.51999	-.41	-.92	2	
3	3	5	1	3.24	.51	.48	.16	.56408	2.73	2.46	18	

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M	K	L	GRP	FD	FC	A	B	SINTH/LW	DF	W*DF	ANGLE CALC	ANGLE STAT
3	5	6	1	9.55	8.90	-8.87	-0.71	.61020	.66	1.44	185	
3	5	7	1	65.43	61.63	61.53	3.40	.65791	3.91	7.30	3	
3	6	-13	1	3.57	1.30	-1.29	-.15	.67868	2.27	1.80	187	
3	6	-12	1	61.14	62.67	-62.57	-2.10	.68309	-1.42	-3.25	182	
3	6	-11	1	20.64	21.40	21.34	1.52	.68936	-.76	-2.59	4	
3	6	-10	1	23.69	23.69	23.68	.53	.69795	-.00	-.01	1	
3	6	-9	1	32.42	32.49	32.45	1.64	.50241	-.07	-.27	2	
3	6	-8	1	10.20	10.44	-10.41	.74	.47444	-.24	-.66	175	
3	6	-7	1	5.85	4.99	4.79	-1.44	.44390	.85	1.58	344	
3	6	-6	1	138.04	136.15	136.08	4.34	.41875	1.80	2.95	1	
3	6	-5	1	26.44	26.05	26.03	.83	.40002	.40	1.57	1	
3	6	-4	1	3.53	4.40	-4.39	-.32	.38862	-.87	-1.09	185	
3	6	-3	1	24.39	23.95	-23.92	-1.25	.38521	.44	1.76	183	
3	6	-2	1	36.14	38.45	38.42	1.46	.39000	-2.27	-6.86	2	
3	6	-1	1	44.21	44.41	-44.41	-.04	.40270	-.20	-.53	181	
3	6	0	1	13.92	14.12	14.08	1.08	.42259	-.20	-.71	4	
3	6	1	1	6.27	5.63	5.60	.56	.44872	.64	1.19	5	
3	6	2	1	22.89	23.24	-23.18	-1.61	.48008	-.35	-1.43	184	
3	6	3	1	94.63	95.65	95.56	4.22	.51570	-1.02	-1.37	2	
3	6	4	1	11.51	11.60	11.59	.64	.55477	-.10	-.25	3	
3	6	5	1	15.00	14.38	-14.38	.05	.59662	.62	1.74	0	
3	6	6	1	21.55	31.06	-31.05	-.63	.64069	.49	1.76	182	
3	6	7	1	22.81	21.33	21.31	1.00	.68656	1.48	4.51	2	
3	7	-12	1	3.54	.19	-.03	.19	.66191	3.34	2.87	98	
3	7	-11	1	2.36	.95	.93	-.21	.62052	1.41	.84	348	
3	7	-10	1	19.73	19.66	19.59	1.73	.58165	.06	.22	5	
3	7	-9	1	59.52	59.35	59.30	2.19	.54584	.18	.39	2	
3	7	-8	1	14.53	15.04	15.03	.48	.51373	-.46	-1.48	1	
3	7	-7	1	22.84	22.46	-22.36	-2.16	.48605	.38	1.53	186	
3	7	-6	1	50.09	43.62	48.52	3.03	.46361	1.47	3.57	3	
3	7	-5	1	10.39	9.91	9.91	-.01	.44717	.49	1.40	0	
3	7	-4	1	2.05	3.23	3.22	.12	.43744	-1.18	-.80	2	
3	7	-3	1	4.85	3.48	3.48	.15	.43484	1.37	2.14	2	
3	7	-2	1	8.30	8.58	8.57	-.38	.43952	-.27	-.66	358	
3	7	-1	1	49.82	49.74	49.68	2.42	.45124	.09	.22	2	
3	7	0	1	7.02	7.01	6.84	1.53	.46948	.01	.02	12	
3	7	1	1	12.68	12.98	-12.98	.16	.49352	-.30	-.92	179	
3	7	2	1	11.63	11.42	-11.34	-1.36	.52255	.21	.57	187	
3	7	3	1	48.17	48.10	48.01	2.91	.55580	.06	.16	3	
3	7	4	1	16.14	16.14	-16.13	-.37	.59255	.00	.01	182	
3	7	5	1	3.12	2.80	-2.80	-.01	.63219	.32	.23	181	
3	7	6	1	11.37	10.36	10.36	.20	.67422	1.01	2.10	1	
3	7	7	1	34.92	35.58	35.55	1.38	.65382	-.65	-2.25	2	
3	8	-11	1	28.18	27.79	-27.72	-1.90	.65474	.39	1.33	184	
3	8	-10	1	26.92	26.54	26.45	2.27	.61833	.35	1.33	4	
3	8	-9	1	4.27	3.07	-3.00	.67	.58509	1.19	1.39	167	
3	8	-8	1	6.72	5.55	5.55	.07	.55560	1.17	2.10	0	
3	8	-7	1	14.23	13.26	-13.18	-1.41	.53047	1.07	3.14	187	
3	8	-6	1	8.62	7.54	7.46	1.10	.51035	.97	2.46	8	
3	8	-5	1	10.52	10.34	10.32	.64	.49585	.18	.47	3	
3	8	-4	1	20.56	19.77	19.70	1.70	.48747	.79	.93	4	
3	8	-3	1	64.30	63.82	63.81	1.46	.48553	.48	.93	4	
3	8	-2	1	33.81	33.71	-33.66	-1.84	.49011	.10	.33	1	
3	8	-1	1	73.89	75.13	75.06	3.40	.50102	-1.24	-1.68	184	
3	8	0	1	2.62	3.60	3.55	.61	.51788	-.98	-.74	2	
3	8	1	1	2.24	.36	.35	-.06	.54011	1.89	1.18	9	

T	K	L	GRP	FG	FC	A	B	SINTH/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
3	8	2	1	27.06	27.21	-27.19	-1.09	.56709	-14	-.69	193	
3	4	3	1	24.49	25.38	-25.38	.38	.50818	-89	-3.10	179	
3	4	4	1	17.79	17.84	17.87	.56	.63277	-10	-.30	1	
3	4	5	1	20.62	19.30	19.27	1.13	.67032	1.32	3.99	3	
3	9	-11	1	45.66	45.76	-45.68	-2.68	.69157	-10	-.30	184	
3	9	-10	1	11.33	9.81	9.64	1.93	.65750	1.52	3.51	10	
3	9	-9	1	4.33	2.05	-2.05	.10	.62664	2.28	2.46	177	
3	9	-8	1	10.27	9.14	9.10	.78	.59951	1.14	2.69	4	
3	9	-7	1	21.61	21.48	-21.48	-.02	.57662	.13	.45	181	
3	9	-6	1	9.22	7.37	-7.36	-.39	.55850	1.85	4.22	184	
3	9	-5	1	63.10	61.45	61.41	2.24	.54563	1.65	2.97	2	
3	9	-4	1	50.23	48.53	48.49	2.03	.53838	1.70	3.69	2	
3	9	-3	1	5.70	5.00	-4.98	.47	.53698	.70	1.10	174	
3	9	-2	1	22.62	22.97	-22.87	-2.16	.54147	-.35	-1.31	186	
3	9	-1	1	62.12	62.03	61.97	2.69	.55171	.08	.15	2	
3	9	0	1	7.33	6.41	-6.41	-.18	.56739	.92	1.71	182	
3	9	1	1	3.99	4.40	4.38	.35	.58807	-.41	-.42	4	
3	9	2	1	4.84	3.65	3.65	.15	.61325	1.19	1.39	2	
3	9	3	1	8.42	8.62	-8.59	.70	.64240	-.20	-.33	185	
3	9	4	1	14.07	13.83	13.69	1.97	.67501	.23	.58	8	
3	9	-10	1	4.74	3.80	3.68	.96	.69873	.94	.98	14	
3	10	-9	1	9.22	8.83	-8.82	.42	.67005	.46	.85	177	
3	10	-8	1	26.82	26.83	26.78	1.76	.64504	-.02	-.06	3	
3	10	-7	1	15.82	14.66	14.61	1.21	.62413	1.17	3.32	4	
3	10	-6	1	31.98	30.78	30.71	-2.05	.60774	1.19	4.30	184	
3	10	-5	1	39.71	37.14	37.08	2.14	.59625	2.57	7.27	3	
3	10	-4	1	34.23	33.18	33.17	.95	.58994	1.05	3.32	1	
3	10	-3	1	15.72	15.51	-15.51	-.01	.58898	.21	.65	181	
3	10	-2	1	13.68	13.32	-13.27	-1.17	.59339	.36	.97	186	
3	10	-1	1	30.66	30.82	30.81	1.01	.60306	-.15	-.56	1	
3	10	0	1	29.10	29.12	29.10	.97	.61774	-.02	-.07	1	
3	10	1	1	11.51	11.24	11.16	1.35	.63709	.26	.59	6	
3	10	2	1	8.32	6.53	6.48	.84	.66069	1.79	3.07	7	
3	10	3	1	4.52	2.66	2.66	1.34	.66811	1.86	1.79	330	
3	10	4	1	30.97	30.09	30.08	-1.34	.66925	.86	.58	19	
3	10	5	1	29.80	28.08	-27.97	1.03	.67270	.64	3.00	1	
3	10	6	1	2.83	4.58	-4.50	-2.43	.65781	.88	5.95	185	
3	10	7	1	17.38	16.74	-16.74	1.29	.64750	1.72	1.72	163	
3	10	8	1	38.32	37.58	37.56	-.03	.64199	-1.85	-1.16	181	
3	10	9	1	27.38	27.04	27.03	.72	.64575	.64	1.81	1	
3	10	-1	1	34.33	34.42	-34.41	-1.17	.64140	.74	2.11	1	
3	10	-2	1	44.99	44.87	44.82	-.88	.65493	-.10	-.31	182	
3	10	-3	1	31.30	30.60	30.55	1.95	.66876	.13	.33	2	
3	10	-4	1	10.68	9.65	9.61	.81	.68694	.70	2.37	3	
3	10	-5	1	4.61	6.75	6.72	.57	.69925	1.04	1.99	4	
3	10	-6	1	21.83	21.95	21.89	1.68	.69442	-2.14	-2.02	4	
3	10	-7	1	5.74	5.43	5.33	1.02	.69844	-.12	-.36	4	
3	10	-8	1	14.37	14.64	14.60	.98	.70463	.30	.35	10	
3	10	-9	1	13.13	12.43	12.33	1.56	.68834	-.27	-.63	3	
3	10	-10	1	3.32	2.76	-2.64	-.82	.67637	.71	1.68	7	
3	10	-11	1	17.44	16.61	16.54	.59	.66894	1.57	1.54	198	
3	10	-12	1	9.70	9.56	9.54	.52	.66622	.18	.14	169	
3	10	-11	1	28.65	26.53	26.48	1.58	.66826	.84	2.43	4	
3	10	-12	1	17.60	16.57	-16.45	-1.98	.67501	.14	.28	3	
3	10	0	1					.68634	1.04	2.91	187	

77639

Y	K	L	GRP	FG	FC	A	R	SINTH/LW	DF	W*DF	ANGLE CALC	ANGLE STAT
4	-12	1	1	10.83	10.40	10.38	.57	.70203	.44	.87	187	
4	-11	-9	1	22.40	22.15	-22.07	-1.95	.70239	.25	.76	186	
4	-11	-4	1	11.52	10.76	10.72	.92	.67700	.76	1.70	4	
4	-11	-7	1	6.84	6.92	6.63	1.59	.65549	.02	.03	13	
4	-11	-6	1	31.33	31.32	31.29	.71	.63824	.06	.23	2	
4	-11	-5	1	19.31	19.50	19.59	.71	.62562	-.29	-.91	2	
4	-11	-4	1	33.69	32.49	-32.48	-1.00	.61789	1.20	4.11	182	
4	-11	-3	1	7.60	7.13	-7.13	.26	.61525	1.20	4.11	177	
4	-11	-2	1	21.76	19.51	19.50	.47	.61775	.47	.81	1	
4	-11	-1	1	40.92	38.76	38.71	.04	.62596	2.15	5.95	3	
4	-11	0	1	55.46	54.13	-54.07	-2.62	.63786	1.33	2.58	183	
4	-11	1	1	16.77	17.46	17.43	.95	.65500	-.69	-1.94	3	
4	-11	2	1	40.51	40.73	40.68	2.03	.67641	-.23	-.62	2	
4	-11	3	1	36.67	35.66	35.65	1.09	.70170	1.01	3.52	1	
4	-10	-10	1	24.60	24.70	24.59	2.34	.66754	-.10	-.32	5	
4	-10	-9	1	7.97	7.35	-7.30	-.85	.65705	.62	1.05	187	
4	-10	-8	1	45.08	45.23	45.22	1.09	.63014	-.15	-.40	1	
4	-10	-7	1	21.43	22.54	22.51	1.13	.60728	-1.11	-3.71	2	
4	-10	-6	1	11.51	11.63	-11.63	-.04	.58894	-.13	-.32	181	
4	-10	-5	1	3.32	1.63	-.51	1.55	.57556	1.69	1.65	108	
4	-10	-4	1	12.37	13.43	-13.28	-2.01	.56748	-1.06	-2.90	189	
4	-10	-3	1	2.20	.27	-.25	.10	.56494	1.93	1.23	157	
4	-10	-2	1	3.35	3.56	-3.40	1.05	.56800	-.21	-.18	162	
4	-10	-1	1	35.55	34.36	34.31	1.87	.57658	1.19	3.66	3	
4	-10	0	1	17.52	15.78	-15.77	-.64	.59044	1.74	5.64	183	
4	-10	1	1	10.94	10.19	10.15	.82	.60922	.76	1.85	4	
4	-10	2	1	13.32	12.84	12.78	1.24	.63248	.48	1.28	5	
4	-10	3	1	35.58	35.28	35.28	.69	.65975	.30	.93	1	
4	-10	4	1	20.05	19.37	19.29	1.66	.69054	.68	1.99	5	
4	-10	5	1	26.19	25.88	25.83	1.55	.68090	.32	1.03	2	
4	-9	-10	1	26.26	27.52	27.48	1.37	.64548	-1.26	-4.24	3	
4	-9	-9	1	27.91	27.97	27.96	.77	.61322	-.06	-.21	1	
4	-9	-8	1	23.33	23.01	-23.00	-.93	.58461	.31	1.13	183	
4	-9	-7	1	14.21	13.79	13.79	.06	.56023	.42	1.27	0	
4	-9	-6	1	6.37	7.14	7.14	.26	.54064	-.77	-1.32	2	
4	-9	-5	1	37.52	38.24	38.13	2.82	.52639	-.72	-2.17	4	
4	-9	-4	1	31.95	31.45	-31.39	-2.07	.51791	.49	1.70	184	
4	-9	-3	1	3.14	3.59	3.49	.85	.51549	-.46	-.42	13	
4	-9	-2	1	22.03	22.20	22.12	1.86	.51921	-.17	-.66	4	
4	-9	-1	1	4.66	4.58	4.50	.83	.52894	.08	.11	10	
4	-9	0	1	37.21	35.93	35.91	1.24	.54436	1.28	3.88	183	
4	-9	1	1	18.58	19.29	-19.26	-.93	.56501	-.71	-2.39	179	
4	-9	2	1	13.10	14.37	-14.37	.06	.59033	-1.27	-3.53	179	
4	-9	3	1	6.09	4.85	-4.84	.35	.61975	1.24	1.89	175	
4	-9	4	1	49.62	48.86	48.80	2.23	.65273	.76	1.87	2	
4	-9	5	1	2.47	3.12	2.55	-1.81	.68874	-.65	-.37	325	
4	-8	-12	1	2.52	.21	.04	.20	.68270	2.31	1.28	78	
4	-8	-11	1	19.92	19.95	-19.95	.18	.64275	-.03	-.08	179	
4	-8	-10	1	4.15	1.36	1.35	-.16	.60543	2.79	2.95	354	
4	-8	-9	1	36.81	37.76	37.68	2.40	.57123	-.95	-2.93	3	
4	-8	-8	1	49.52	50.82	-50.78	-2.00	.54075	-1.29	-2.84	183	
4	-8	-7	1	9.51	9.94	9.94	.13	.51466	-1.44	-1.07	0	
4	-8	-6	1	56.15	57.55	57.52	1.69	.49365	-1.39	-2.67	1	
4	-8	-5	1	98.26	98.36	98.31	3.29	.47839	-.10	-.15	1	
4	-8	-4	1	45.96	46.74	-46.73	-.92	.46945	-.77	-1.85	182	
4	-8	-3	1	2.10	1.73	-1.65	.53	.46717	.37	.25	162	

	FD	FC	A	B	SINTH/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
4	-2	13.26	12.13	12.14	.87	47167	1.09	3.70	
4	-3	3.15	1.12	1.12	-.04	48275	2.03	2.26	4
4	-8	23.95	24.05	23.95	2.20	49998	-.20	-.81	358
4	-3	44.75	44.72	-44.65	-2.64	52274	.03	.08	5
4	-6	6.12	7.03	7.03	.16	55036	-.91	-1.49	184
4	-6	27.85	28.02	27.98	1.53	58213	-.17	-.65	3
4	-8	62.96	62.24	62.20	2.19	61743	.71	1.44	2
4	-4	21.57	20.24	-20.23	-.56	65567	1.33	4.20	182
4	-5	13.02	11.86	11.85	.65	69638	1.16	2.85	3
4	-7	9.85	11.29	11.28	.17	69288	1.43	-2.50	179
4	-7	15.50	14.66	-14.65	-.59	64897	.84	2.28	183
4	-7	21.80	21.30	-21.30	-.54	60712	.50	1.69	182
4	-10	7.83	6.83	6.83	.05	56778	.99	2.01	0
4	-7	44.67	45.06	44.91	3.60	53152	-.39	-.98	4
4	-7	21.63	21.47	-21.42	-1.51	49900	1.16	.62	185
4	-7	25.23	24.70	24.68	.88	47100	.54	2.34	2
4	-7	47.30	46.91	46.87	1.95	44837	.38	.95	2
4	-7	30.37	30.30	30.28	1.11	43195	.07	.25	2
4	-7	15.75	19.34	19.32	.90	42246	-.97	-2.43	2
4	-7	21.30	21.09	21.08	-.64	42038	.20	.89	359
4	-7	10.93	9.97	-9.96	-.32	42582	.96	3.02	182
4	-7	4.34	1.41	-1.40	.14	43249	2.93	4.41	174
4	-7	44.24	46.25	46.15	2.99	45780	-2.01	-4.91	3
4	-7	19.67	18.52	-18.43	-1.83	48295	1.15	4.64	186
4	-7	14.48	15.34	15.31	.85	51308	-.86	-2.81	3
4	-7	17.40	17.32	17.23	1.72	54736	.09	.31	5
4	-7	22.02	21.65	21.64	.86	58508	.37	1.32	2
4	-7	9.00	8.95	8.85	1.32	62561	.05	.10	8
4	-6	4.21	2.57	2.43	-.81	66843	1.64	1.60	342
4	-6	50.64	50.21	50.13	2.85	66888	.43	1.13	3
4	-6	18.96	19.05	-19.03	-.85	61822	-.08	-.26	183
4	-6	7.35	7.43	-7.43	-.23	57446	-.09	-.16	182
4	-5	7.37	8.30	8.25	.94	53307	-.93	-1.76	6
4	-6	63.60	63.75	63.66	3.46	49465	-.16	-.30	3
4	-6	2.27	3.10	3.04	-.60	45994	-.83	-.61	349
4	-6	22.50	22.20	-22.20	-.05	42983	.30	1.31	181
4	-6	12.99	13.11	13.10	.41	40537	-.11	-.41	1
4	-6	8.09	8.71	8.70	-.40	38762	-.62	-1.68	358
4	-6	98.25	99.28	99.22	3.27	37752	1.02	-1.72	1
4	-6	45.57	44.19	-44.15	-1.97	37569	-1.38	3.12	183
4	-6	26.47	26.93	26.93	.21	38226	-.46	-1.79	0
4	-6	47.88	50.65	50.61	1.77	39680	-2.77	-6.12	2
4	-6	64.96	67.46	67.40	2.75	41849	-2.49	-3.86	2
4	-6	24.68	26.38	-26.38	-.44	44628	-1.70	-7.34	181
4	-6	4.01	3.52	3.50	.43	47911	.48	.62	7
4	-6	3.58	1.30	1.18	.54	51603	2.28	2.52	24
4	-6	38.09	37.37	-37.37	-.66	55622	.71	2.28	182
4	-6	49.07	48.08	48.00	2.68	59901	.99	2.32	3
4	-6	20.01	19.68	-19.58	-1.98	64390	.33	1.04	186
4	-6	10.00	9.80	-9.80	-.06	69047	.20	.41	181
4	-5	13.60	13.41	13.41	-.03	68693	.19	.46	0
4	-5	61.76	62.40	62.25	4.28	63824	-.64	-1.25	3
4	-5	4.80	6.39	6.33	-.86	59091	-1.59	-1.88	353
4	-5	18.36	18.50	18.50	.46	54531	-.14	-.49	1
4	-5	13.56	14.14	-14.12	.68	50190	-.58	-1.84	1
4	-5	26.22	26.83	26.81	.86	46129	-.60	-2.42	1

H	K	L	GRP	FD	FC	A	B	SINTH/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
4	-5	-8	1	21.11	21.78	21.77	.64	.42430	-.67	-2.90	182	
4	-5	-7	1	44.10	43.38	-43.38	-.80	.39195	.71	1.91	182	
4	-5	-6	1	51.86	50.30	-50.29	-.88	.36547	1.56	3.69	181	
4	-5	-6	1	28.44	29.00	29.00	.20	.34621	-.56	-1.97	0	
4	-5	-4	1	177.97	176.05	175.98	5.05	.33543	1.52	2.76	1	
4	-5	-3	1	50.58	50.39	-50.36	-1.71	.33394	.19	.48	182	
4	-5	-2	1	26.08	23.87	23.86	.70	.34186	2.21	8.59	1	
4	-5	-1	1	54.42	53.61	53.57	1.91	.35857	.81	1.36	2	
4	-5	0	1	58.20	58.74	58.73	1.20	.38292	-.53	-.87	1	
4	-5	1	1	13.56	13.40	-13.36	.98	.41357	.16	.62	175	
4	-5	2	1	45.02	46.42	-46.40	-1.28	.44922	-1.40	-3.49	182	
4	-5	3	1	12.82	13.25	-13.24	-.42	.48879	-.43	-1.40	182	
4	-5	4	1	2.91	1.96	1.94	.27	.53139	.95	.88	7	
4	-5	5	1	48.91	49.88	49.78	3.09	.57637	-.97	-2.33	3	
4	-5	6	1	28.52	27.51	-27.45	-1.79	.62319	1.01	3.62	184	
4	-5	7	1	26.94	26.78	26.76	.96	.67148	.16	.54	2	
4	-4	-14	1	47.78	48.70	48.69	.99	.66637	-.93	-2.62	1	
4	-4	-13	1	36.63	36.35	36.22	3.08	.61636	.28	.93	4	
4	-4	-12	1	20.00	19.51	-19.49	-.92	.56755	.49	1.69	183	
4	-4	-11	1	14.16	14.39	14.39	.24	.52026	-.23	-.71	0	
4	-4	-10	1	10.69	11.53	11.53	.18	.47496	-.84	-2.27	0	
4	-4	-9	1	24.59	24.24	-24.22	-1.05	.43226	.34	1.48	183	
4	-4	-8	1	27.90	28.82	28.65	3.13	.39302	-.92	-3.44	6	
4	-4	-7	1	2.23	1.36	1.18	-.68	.35838	.87	.76	331	
4	-4	-6	1	2.09	.61	.60	-.09	.32978	.97	1.34	352	
4	-4	-5	1	23.96	23.17	23.14	1.23	.30892	.79	3.46	3	
4	-4	-4	1	98.65	96.78	96.72	3.31	.29742	1.87	3.63	1	
4	-4	-3	1	15.68	14.78	-14.77	-.38	.29637	.90	4.69	182	
4	-4	-2	1	5.44	5.09	6.08	.34	.30588	-.65	-1.61	3	
4	-4	-1	1	5.41	4.92	4.91	.21	.32503	.49	1.16	2	
4	-4	0	1	11.56	10.75	10.73	-.60	.35225	.81	3.16	357	
4	-4	1	1	58.81	61.00	60.91	3.35	.38583	-2.19	-3.56	3	
4	-4	2	1	11.44	9.60	-9.47	-1.58	.42427	1.84	6.32	190	
4	-4	3	1	4.05	2.42	2.42	-.09	.46636	1.63	2.26	358	
4	-4	4	1	42.39	42.96	42.93	1.70	.51121	-.58	-1.50	2	
4	-4	5	1	34.31	34.41	34.33	2.25	.55815	-.09	-.31	3	
4	-4	6	1	12.25	12.02	-12.02	-.24	.60669	.23	.59	182	
4	-4	7	1	10.83	9.66	9.65	.33	.65648	1.17	2.65	182	
4	-3	-15	1	.20	6.98	-6.98	-.24	.70164	1.22	1.95	1	
4	-3	-14	1	4.37	4.67	-4.66	.17	.64975	-.30	-.29	177	
4	-3	-13	1	22.01	22.36	22.35	.68	.59867	-.35	-1.19	1	
4	-3	-12	1	32.60	32.20	32.18	1.09	.54863	-.35	-1.19	1	
4	-3	-11	1	13.76	13.59	-13.59	.05	.49993	.40	1.41	1	
4	-3	-11	1	11.98	12.13	12.13	-.15	.45301	.16	.51	179	
4	-3	-10	1	11.98	12.13	12.13	-.15	.45301	-.14	-.44	0	
4	-3	-9	1	29.69	30.65	-30.64	-.44	.40849	-.95	-3.24	181	
4	-3	-8	1	156.05	153.74	153.65	5.31	.36722	2.31	3.96	1	
4	-3	-7	1	8.84	10.16	-10.11	-1.00	.33045	-1.32	-4.23	186	
4	-3	-6	1	11.44	12.10	-12.10	.13	.29983	-.66	-2.77	179	
4	-3	-5	1	29.16	29.62	-29.61	.75	.27739	-.46	-1.46	178	
4	-3	-4	1	6.63	7.76	-7.76	.28	.26523	-1.13	-3.62	177	
4	-3	-3	1	63.79	64.37	64.36	1.54	.26477	-.58	-1.19	1	
4	-3	-2	1	26.62	26.54	-26.53	-.68	.27606	.08	.30	182	
4	-3	-1	1	12.12	12.32	12.31	-.47	.29777	-.20	-.92	358	
4	-3	0	1	10.64	9.64	9.64	.05	.32783	1.00	3.92	0	
4	-3	1	1	164.72	170.91	170.84	4.98	.36419	-6.19	-10.69	1	
4	-3	2	1	10.55	11.50	-11.44	-1.16	.40516	-.95	-3.10	186	

H	K	L	GRP	FD	FC	A	B	SINTH/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
4	-3	3	1	20.65	21.02	21.01	.64	.44946	-.36	-1.54	182	
4	-3	4	1	19.94	19.47	19.42	1.39	.49622	.47	1.85	1	
4	-3	5	1	3.28	1.62	-1.62	.17	.54480	1.66	1.65	4	
4	-3	6	1	19.44	18.72	18.66	1.52	.59475	.72	2.41	173	
4	-3	7	1	21.53	21.59	-21.57	-1.05	.64576	-.07	-.22	4	
4	-3	8	1	13.15	13.23	-13.21	-.59	.69759	-.08	-.19	183	
4	-2	15	1	19.07	18.46	-18.45	-.09	.68992	.61	1.72	183	
4	-2	14	1	12.43	13.20	-13.20	-.17	.63738	-.77	-1.82	181	
4	-2	13	1	7.93	7.17	7.14	-.60	.58554	.82	1.58	356	
4	-2	12	1	71.29	71.83	71.73	3.72	.53462	-.54	-1.00	2	
4	-2	11	1	7.68	7.45	7.45	.26	.48491	.22	.47	2	
4	-2	10	1	12.94	12.65	12.65	.06	.43681	.29	.94	0	
4	-2	9	1	34.56	33.72	33.72	.62	.39092	.84	2.51	1	
4	-2	8	1	109.23	106.77	106.71	3.60	.34812	2.51	4.43	1	
4	-2	7	1	51.40	49.11	-49.10	-.92	.30970	2.29	4.24	182	
4	-2	6	1	1.70	2.12	2.11	.09	.27746	-.42	-.34	2	
4	-2	5	1	8.70	8.37	-8.36	-.41	.25379	-.42	-0.34	183	
4	-2	4	1	26.42	26.14	-26.11	-1.11	.24122	.33	1.29	183	
4	-2	3	1	118.67	118.41	118.34	4.19	.24149	2.29	7.83	183	
4	-2	2	1	18.83	19.32	-19.30	-.85	.25456	-.49	-2.41	183	
4	-2	1	1	21.35	21.90	-21.90	-.22	.27863	-.52	-2.36	181	
4	-2	0	1	54.70	55.16	55.14	1.43	.31116	-.46	-.84	1	
4	-2	1	1	177.97	184.91	184.88	3.69	.34980	-6.94	-12.28	1	
4	-2	2	1	26.25	27.64	-27.64	-.47	.39275	-.91	-5.27	181	
4	-2	3	1	19.52	20.43	-20.43	.03	.43874	-.91	-3.87	179	
4	-2	4	1	2.08	.25	-.24	.08	.48692	1.82	1.23	162	
4	-2	5	1	11.29	11.72	11.71	-.50	.53669	-.44	-1.19	358	
4	-2	6	1	19.27	18.77	18.53	2.98	.58765	.51	1.72	9	
4	-2	7	1	42.65	42.11	-42.07	-1.66	.63952	.54	1.59	183	
4	-2	8	1	12.61	11.58	11.58	.08	.69209	1.03	2.39	0	
4	-1	15	1	4.53	5.50	-5.46	.68	.68238	-.98	-.93	172	
4	-1	14	1	15.91	15.36	-15.36	-.04	.62951	.55	1.56	181	
4	-1	13	1	8.23	7.99	7.98	-.53	.52593	.23	.47	357	
4	-1	12	1	80.04	81.05	80.91	4.70	.47570	-1.01	-1.35	3	
4	-1	11	1	9.75	8.70	8.68	-.53	.47570	1.05	2.77	357	
4	-1	10	1	6.52	5.13	5.13	-.12	.42701	1.39	2.81	359	
4	-1	9	1	65.34	64.82	64.82	.78	.38043	.51	.84	0	
4	-1	8	1	11.94	11.56	-11.56	.11	.33686	.38	1.44	179	
4	-1	7	1	5.77	3.49	-3.31	1.11	.29761	2.28	5.60	161	
4	-1	6	1	34.35	34.14	34.13	.50	.26462	.22	.73	0	
4	-1	5	1	27.11	25.64	25.64	-.06	.24047	1.47	4.97	182	
4	-1	4	1	19.71	20.44	-20.44	-.58	.22799	-.74	-3.34	182	
4	-1	3	1	178.00	171.50	171.43	4.95	.22910	6.50	14.67	1	
4	-1	2	1	10.11	8.96	8.94	-.63	.24361	1.15	5.18	356	
4	-1	1	1	3.60	3.57	-3.57	.21	.26936	.03	.05	176	
4	-1	0	1	10.60	9.87	-9.85	.70	.30351	.73	3.02	175	
4	-1	1	1	32.37	32.80	-32.80	-.16	.34356	-.43	-1.40	181	
4	-1	2	1	50.41	52.82	52.78	1.92	.38768	-.43	-5.46	2	
4	-1	3	1	14.57	15.22	15.22	-.27	.43465	-.66	-2.41	359	
4	-1	4	1	14.68	14.87	-14.86	-.62	.48362	-.19	-.67	183	
4	-1	5	1	11.77	11.46	11.46	.26	.53405	.30	.36	1	
4	-1	6	1	68.59	68.27	68.15	4.03	.58556	.32	.55	3	
4	-1	7	1	5.96	3.81	-3.70	-.89	.63790	2.16	2.96	194	
4	-1	8	1	7.97	5.16	-5.15	.26	.69086	2.81	4.74	177	
4	-1	15	1	26.02	26.08	26.05	1.03	.67915	-.06	-.19	2	
4	-1	14	1	2.41	4.04	-4.03	-.31	.62630	-1.63	-.95	185	

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H	K	L	GRP	FD	FC	A	B	SINTH/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
4	0	-13	1	37.04	36.65	-36.64	-.99	.57412	.39	1.29	182	
4	0	-12	1	57.15	56.88	-56.80	3.02	.52281	.27	.61	182	
4	0	-11	1	8.15	8.14	-8.12	-.55	.47265	.02	.03	184	
4	0	-10	1	4.06	1.78	-1.78	.06	.42405	2.28	3.00	178	
4	0	-9	1	2.86	1.64	1.64	.03	.37761	1.22	1.30	0	
4	0	-8	1	8.56	7.98	7.92	-.98	.33423	.58	1.80	353	
4	0	-7	1	199.86	195.01	194.95	4.89	.29527	4.85	9.47	1	
4	0	-6	1	25.44	25.07	-25.07	.14	.26270	.37	1.32	179	
4	0	-5	1	3.93	1.76	-1.76	.02	.23914	2.17	4.35	179	
4	0	-4	1	17.57	15.12	15.12	.37	.22742	2.45	11.32	1	
4	0	-3	1	138.44	134.44	134.44	3.04	.22935	3.96	8.94	1	
4	0	-2	1	75.13	74.84	-74.84	-.73	.24461	.29	.63	181	
4	0	-1	1	12.37	11.78	-11.78	.10	.27097	.59	2.82	179	
4	0	0	1	18.77	19.03	-19.03	-.22	.30555	.26	-1.28	181	
4	0	1	1	82.18	85.04	-85.02	-1.66	.34591	-2.85	-5.05	182	
4	0	2	1	106.33	109.98	109.89	4.46	.39025	-3.66	-6.01	0	
4	0	3	1	19.15	20.06	20.05	-.30	.43737	-.91	-3.72	0	
4	0	4	1	19.63	20.20	20.20	.08	.48645	-.57	-2.25	0	
4	0	5	1	14.63	14.34	14.31	.90	.53697	-.29	.92	3	
4	0	6	1	70.26	70.92	70.87	2.61	.58855	-.66	-1.14	2	
4	0	7	1	10.77	11.64	11.64	.20	.64093	-.87	-1.84	0	
4	0	8	1	14.67	13.49	-13.49	-.11	.69394	1.18	2.94	181	
4	0	-15	1	2.49	1.59	-1.56	-.34	.68029	.90	.51	191	
4	0	-14	1	4.26	4.27	4.25	-.34	.62784	-.00	-.00	356	
4	0	-13	1	29.76	30.03	-30.02	-.56	.57612	-.27	-1.04	182	
4	0	-12	1	2.20	1.84	-1.84	.17	.52537	.35	.23	174	
4	0	-11	1	24.44	24.79	24.75	1.32	.47587	-.35	-1.45	3	
4	0	-10	1	10.61	9.97	9.90	1.25	.42807	.63	1.86	181	
4	0	-9	1	19.09	19.03	-19.03	-.10	.38261	.06	.28	7	
4	0	-8	1	3.96	2.88	2.78	-.75	.34043	1.09	1.68	345	
4	0	-7	1	229.62	224.75	224.68	5.62	.30289	4.87	9.38	182	
4	0	-6	1	14.54	15.25	-15.24	-.51	.27193	-.71	-3.56	182	
4	0	-5	1	16.90	17.53	-17.52	-.30	.25000	-.63	-3.28	181	
4	0	-4	1	22.45	18.90	-18.90	.19	.23960	3.55	14.85	179	
4	0	-3	1	14.42	11.14	-11.14	.12	.24221	3.28	17.41	179	
4	0	-2	1	34.65	34.85	34.82	1.52	.24221	-.20	-.54	2	
4	0	-1	1	5.27	5.08	5.07	.28	.28327	.19	.48	3	
4	0	0	1	21.83	21.92	-21.81	-.43	.31710	.01	.05	182	
4	0	1	1	8.69	8.86	8.85	-.28	.35668	-.17	-.51	359	
4	0	2	1	120.08	125.40	125.30	4.84	.44030	-5.31	-8.60	2	
4	0	3	1	31.16	31.61	-31.60	-.80	.44678	-.45	-1.51	182	
4	0	4	1	11.31	9.54	9.54	.19	.49531	1.77	5.25	1	
4	0	5	1	21.79	21.53	21.52	.70	.54535	.26	.96	1	
4	0	6	1	24.84	24.52	24.52	.04	.59652	.32	1.12	0	
4	0	7	1	16.23	15.10	15.02	1.60	.64855	1.13	3.11	6	
4	0	8	1	5.04	5.32	-5.31	-.30	.70125	-.28	-.29	0	
4	0	-15	L	4.34	5.39	-5.37	-.46	.68578	-1.04	-.94	184	
4	0	-14	L	8.90	8.12	-8.10	.51	.63408	.78	1.51	185	
4	0	-13	L	25.31	25.82	25.81	.63	.58324	-.51	-1.88	1	
4	0	-12	L	29.35	29.40	-29.37	-1.31	.53351	-.04	-.17	183	
4	0	-11	L	65.11	65.08	64.97	3.77	.48524	.03	.06	3	
4	0	-10	L	5.86	3.76	3.63	.97	.43889	2.11	3.77	14	
4	0	-9	L	17.01	17.87	-17.87	-.24	.39516	-.86	-3.58	181	
4	0	-8	L	16.30	15.86	15.85	-.53	.35500	.44	1.92	359	
4	0	-7	L	43.45	42.55	42.47	2.51	.31976	.90	2.25	3	
4	0	-6	L	6.18	7.49	7.48	-.36	.29125	-1.31	-3.35	358	

H	K	L	Grp	FG	FC	A	B	SINHL/W	DF	W*DF	ANGLE CALC	ANGLE STAT
4	2	-5	1	13.59	13.95	13.94	.49	.27159	-.36	-1.74	2	
4	2	-4	1	54.39	54.20	54.20	.50	.26276	.19	.38	0	
4	2	-3	1	49.00	47.79	-47.77	-1.47	.26585	.20	.41	182	
4	2	-2	1	111.11	113.27	113.13	4.52	.28047	-2.16	-4.33	2	
4	2	-1	1	20.13	19.25	19.24	.47	.30497	.89	3.93	1	
4	2	0	1	13.69	12.66	12.66	-.08	.33719	1.03	4.41	0	
4	2	1	1	24.76	23.82	23.82	.22	.37515	.94	3.86	0	
4	2	2	1	27.73	27.50	27.43	2.00	.41730	.23	.90	4	
4	2	3	1	6.39	3.45	3.45	-.10	.46248	2.94	5.81	359	
4	2	4	1	9.55	9.69	-9.69	.14	.50989	-.13	-.32	179	
4	2	5	1	18.85	18.54	-18.54	-.16	.55896	.31	1.09	181	
4	2	6	1	25.42	24.74	-24.71	-1.22	.60929	.68	2.40	183	
4	2	7	1	65.53	63.13	63.02	3.82	.66060	2.40	4.58	3	
4	2	-1	1	29.22	29.30	29.26	1.48	.66551	-.07	-.23	2	
4	3	-14	1	34.80	35.27	35.21	1.93	.64488	-.44	-1.69	3	
4	3	-13	1	10.58	9.47	9.45	.57	.59529	1.11	2.75	3	
4	3	-12	1	52.13	53.23	-53.19	-1.96	.54700	-1.10	-2.39	183	
4	3	-11	1	90.26	89.69	89.59	4.26	.50041	.57	.78	2	
4	3	-10	1	13.73	13.50	13.49	-.25	.45602	.24	.80	359	
4	3	-9	1	21.80	20.90	-20.89	-.45	.41455	.90	3.99	182	
4	3	-8	1	72.26	71.07	-71.07	-.71	.37697	1.19	1.96	181	
4	3	-7	1	2.42	1.21	-1.21	-.05	.34454	1.21	1.19	183	
4	3	-6	1	89.25	86.94	86.92	2.18	.31884	2.31	4.23	1	
4	3	-5	1	36.59	36.51	36.48	1.37	.30161	.08	.24	2	
4	3	-4	1	31.46	30.24	30.24	.33	.29433	1.22	3.79	0	
4	3	-3	1	13.33	11.97	11.93	-.98	.29773	-6.96	-13.23	356	
4	3	-2	1	189.32	196.28	196.21	5.22	.31146	-1.05	-2.57	1	
4	3	-1	1	42.94	43.99	-43.99	-.66	.33425	-1.05	-2.57	181	
4	4	0	1	10.24	9.14	9.14	-.07	.36440	1.10	3.70	0	
4	4	1	1	23.38	23.19	-23.19	-.00	.40026	.19	.77	181	
4	4	2	1	41.27	42.38	-42.37	-.75	.44043	-1.11	-3.15	182	
4	4	3	1	20.53	20.88	20.81	1.80	.48384	-.36	-1.41	4	
4	4	4	1	11.63	11.49	11.48	.55	.52970	.14	.38	2	
4	4	5	1	2.86	.76	.75	-.10	.57742	2.10	1.66	353	
4	4	6	1	33.49	32.51	-32.50	-.74	.62657	.98	3.29	182	
4	4	7	1	60.81	59.65	59.65	3.93	.67685	1.16	2.50	3	
4	4	-14	1	20.81	21.08	21.04	1.28	.66004	-.27	-.81	3	
4	4	-13	1	4.45	2.97	2.97	-.10	.61198	1.48	1.66	359	
4	4	-12	1	4.06	4.36	-4.17	-1.30	.56545	.49	.64	198	
4	4	-11	1	28.70	29.05	28.98	2.01	.52087	-.35	-1.44	3	
4	4	-10	1	25.30	24.19	-24.19	-.40	.47878	1.11	4.72	181	
4	4	-9	1	25.92	26.11	26.09	.96	.43989	-.18	-.72	2	
4	4	-8	1	13.35	11.62	-11.62	.27	.40513	1.73	6.11	178	
4	4	-7	1	37.05	36.81	-36.78	-1.50	.37565	.24	.74	183	
4	4	-6	1	132.30	131.32	131.25	4.39	.35277	.98	1.72	1	
4	4	-5	1	38.08	36.55	36.53	1.22	.33783	1.52	4.45	1	
4	4	-4	1	39.96	39.79	-39.79	-.52	.33191	.17	.41	181	
4	4	-3	1	7.32	7.42	-7.39	-.65	.33549	-.10	-.26	186	
4	4	-2	1	126.78	129.54	129.52	2.70	.34827	-2.76	-4.87	1	
4	4	-1	1	3.99	3.96	-3.96	-.17	.36930	.02	.03	183	
4	4	0	1	43.12	44.80	-44.80	.23	.39728	-1.68	-3.61	179	
4	4	1	1	15.88	16.80	-16.80	.10	.43084	-.92	-3.48	179	
4	4	2	1	14.97	14.75	14.71	-.99	.46880	.22	.76	357	
4	4	3	1	45.31	45.13	44.96	3.89	.51017	.18	.4	4	
4	4	4	1	20.00	19.39	-19.39	.08	.55419	.61	2.14	179	
4	4	5	1	2.37	3.08	3.08	-.14	.60027	-.71	-.42	358	

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H	K	L	GRP	FD	FC	A	R	SINTH/LM	DF	W*DF	ANGLE CALC	ANGLE STAT
4	4	4	1	17.56	17.65	17.65	.29	.64799	-.09	-.25	0	
4	4	7	1	14.65	13.86	13.79	1.46	.69699	.78	1.91	6	
4	5	-14	1	5.24	6.07	-6.07	-.13	.67924	-.83	-.90	182	
4	5	-13	1	6.82	5.11	-5.11	-.11	.63294	1.70	2.66	182	
4	5	-12	1	38.24	38.07	38.07	.24	.58839	.17	.58	0	
4	5	-11	1	11.11	9.54	-9.54	.03	.54604	1.57	4.12	179	
4	5	-10	1	24.69	25.10	25.05	1.55	.50641	-.41	-1.66	3	
4	5	-9	1	21.39	21.73	21.65	1.87	.47022	-.33	-1.34	4	
4	5	-8	1	55.55	56.11	56.10	.97	.43831	-.56	-1.15	0	
4	5	-7	1	69.42	69.71	69.67	-2.12	.41166	-.29	-.45	182	
4	5	-6	1	59.46	57.49	57.38	3.57	.39138	1.96	3.13	3	
4	5	-5	1	4.95	1.15	-1.13	-.20	.37847	3.80	6.64	190	
4	5	-4	1	4.53	2.22	-2.22	-.08	.37370	2.36	3.86	182	
4	5	-3	1	6.23	4.89	-4.89	-.10	.37370	1.33	2.93	182	
4	5	-2	1	55.48	56.25	-56.24	-.70	.38927	-.76	-1.72	181	
4	5	-1	1	78.76	81.26	91.23	2.43	.40865	-2.50	-3.96	1	
4	5	0	1	39.64	40.03	40.00	1.53	.43453	-.39	-1.13	2	
4	5	1	1	17.54	18.61	18.61	.38	.46582	-1.07	-3.93	1	
4	5	2	1	21.07	21.13	-21.10	-1.11	.50151	-.06	-.22	184	
4	5	3	1	60.16	61.22	61.10	3.83	.54073	-1.07	-1.90	3	
4	5	4	1	2.29	2.19	-2.17	-.34	.58277	1.0	.05	189	
4	5	5	1	14.10	14.48	-14.48	-.28	.62706	-.38	-1.01	182	
4	5	6	1	4.87	3.09	3.09	.12	.67315	1.77	1.93	2	
4	6	-14	1	18.44	18.24	18.24	.29	.70217	.20	.55	0	
4	6	-13	1	22.78	23.44	23.44	1.40	.35777	-.66	-2.48	3	
4	6	-12	1	8.54	9.85	9.81	.87	.61533	-1.31	-2.48	5	
4	6	-11	1	17.49	17.33	-17.28	-1.28	.57529	.16	.52	185	
4	6	-10	1	92.77	92.68	92.61	3.52	.53817	.09	.12	2	
4	6	-9	1	14.07	12.62	-12.57	1.15	.50464	1.45	4.64	5	
4	6	-8	1	24.19	24.96	24.96	-.18	.47544	-.77	-3.22	181	
4	6	-7	1	35.21	34.27	-34.23	-1.76	.45141	.94	2.85	183	
4	6	-6	1	30.25	31.15	31.10	1.78	.43342	-.91	-3.02	3	
4	6	-5	1	26.70	26.26	-26.26	-.18	.42225	.44	1.67	181	
4	6	-4	1	5.08	5.24	5.12	1.08	.41843	-.16	1.41	30	
4	6	-3	1	2.71	1.11	.95	.57	.42216	1.60	1.41	11	
4	6	-2	1	33.65	34.76	-34.72	-1.64	.43326	-1.11	-3.42	183	
4	6	-1	1	97.56	99.96	99.87	4.21	.45118	-.24	-3.56	2	
4	6	0	1	40.18	40.18	40.16	1.07	.47514	.00	.00	1	
4	6	1	1	14.15	14.11	14.11	.03	.50429	.05	.15	0	
4	6	2	1	21.25	21.01	-21.00	-.87	.53778	.23	.85	183	
4	6	3	1	42.16	42.31	42.28	1.64	.57486	-.15	-.39	2	
4	6	4	1	2.38	1.50	1.50	.09	.61487	.88	.52	3	
4	6	5	1	6.57	5.32	-5.30	.49	.65728	.15	1.75	174	
4	6	6	1	16.36	15.59	-15.59	.02	.70166	.78	1.94	179	
4	6	7	1	32.24	32.32	32.26	1.98	.68604	-.08	-.28	3	
4	6	8	1	5.57	5.04	-5.00	.65	.64576	.52	.68	172	
4	6	9	1	10.69	9.86	-9.65	.65	.60803	.83	1.92	192	
4	6	10	1	47.84	47.77	47.69	2.87	.57337	.07	.17	3	
4	7	-9	L	2.83	3.33	3.33	.07	.54236	-.50	-.39	1	
4	7	-8	L	5.54	4.73	-4.73	.05	.51567	.81	1.25	179	
4	7	-7	L	7.30	6.35	-6.35	-.10	.49399	.95	2.01	181	
4	7	-6	L	9.19	7.71	-7.71	-.20	.47800	1.47	3.67	182	
4	7	-5	L	32.46	31.72	31.66	1.83	.46829	.74	2.38	3	
4	7	-4	L	41.10	40.74	40.69	1.91	.46526	.37	.86	2	
4	7	-3	L	21.64	22.03	-22.02	.32	.46902	-.38	-1.54	179	
4	7	-2	L	26.34	25.80	-25.73	-1.82	.47943	.55	2.34	185	