Chart show design dimensions for gears and not gear availability

DIAMETRICAL PITCH
SPUR GEARS
Dimensions in inches
#Teeth/Pitch = Diametrical Pitch

	48	64	72	80
5	0.104	0.078	0.069	0.063
6	0.125	0.094	0.083	0.075
7	0.146	0.109	0.097	0.088
8	0.167	0.125	0.111	0.100
9	0.188	0.141	0.125	0.113
10	0.208	0.156	0.139	0.125
11	0.229	0.172	0.153	0.138
12	0.250	0.188	0.167	0.150
13	0.271	0.203	0.181	0.163
14	0.292	0.219	0.194	0.175
15	0.313	0.234	0.208	0.188
16	0.333	0.250	0.222	0.200
17	0.354	0.266	0.236	0.213
18	0.375	0.281	0.250	0.225
20	0.417	0.313	0.278	0.250
21	0.438	0.328	0.292	0.263
22	0.458	0.344	0.306	0.275
23	0.479	0.359	0.319	0.288
24	0.500	0.375	0.333	0.300
25	0.521	0.391	0.347	0.313
26	0.542	0.406	0.361	0.325
27	0.563	0.422	0.375	0.338

Pitch

	48	64	72	80
28	0.583	0.438	0.389	0.350
29	0.604	0.453	0.403	0.363
30	0.625	0.469	0.417	0.375
31	0.646	0.484	0.431	0.388
32	0.667	0.500	0.444	0.400
33	0.688	0.516	0.458	0.413
34	0.708	0.531	0.472	0.425
35	0.729	0.547	0.486	0.438
36	0.750	0.563	0.500	0.450
37	0.771	0.578	0.514	0.463
38	0.792	0.594	0.528	0.475
39	0.813	0.609	0.542	0.488
40	0.833	0.625	0.556	0.500
41	0.854	0.641	0.569	0.513
42	0.875	0.656	0.583	0.525
43	0.896	0.672	0.597	0.538
44	0.917	0.688	0.611	0.550
45	0.938	0.703	0.625	0.563
46	0.958	0.719	0.639	0.575
47	0.979	0.734	0.653	0.588
48	1.000	0.750	0.667	0.600
49	1.021	0.766	0.681	0.613
50	1.042	0.781	0.694	0.625
51	1.063	0.797	0.708	0.638
52	1.083	0.813	0.722	0.650

To calculate gear center distance (Dc) add 1/2 of each gear Diametrical Pitch
64 Pitch - 11 pinion - 37 spur - Dc = (.172 / 2) + (.578 / 2)
Dc = .086 + .289
Dc = .375

For a SIDEWINDER Installation
Installing an 1106 motor the bell is 14.3mm diameter (.563"), 1/2 the distance is .282"
The rear axle of 3/32", 1/2 the diameter is .047"
The minimum distance for clearance is .282" + .047" = .329"

Chart show design dimensions for gears and not gear availability

OUTSIDE DIAMETER
SPUR GEARS
Dimensions in inches
Outside Diameter = (# teeth + 2)/pitch

	48	64	72	80
5	0.146	0.109	0.097	0.088
6	0.167	0.125	0.111	0.100
7	0.188	0.141	0.125	0.113
8	0.208	0.156	0.139	0.125
9	0.229	0.172	0.153	0.138
10	0.250	0.188	0.167	0.150
11	0.271	0.203	0.181	0.163
12	0.292	0.219	0.194	0.175
13	0.313	0.234	0.208	0.188
14	0.333	0.250	0.222	0.200
15	0.354	0.266	0.236	0.213
16	0.375	0.281	0.250	0.225
17	0.396	0.297	0.264	0.238
18	0.417	0.313	0.278	0.250
20	0.458	0.344	0.306	0.275
21	0.479	0.359	0.319	0.288
22	0.500	0.375	0.333	0.300
23	0.521	0.391	0.347	0.313
24	0.542	0.406	0.361	0.325
25	0.563	0.422	0.375	0.338
26	0.583	0.438	0.389	0.350
27	0.604	0.453	0.403	0.363

Pitch

	48	64	72	80
28	0.625	0.469	0.417	0.375
29	0.646	0.484	0.431	0.388
30	0.667	0.500	0.444	0.400
31	0.688	0.516	0.458	0.413
32	0.708	0.531	0.472	0.425
33	0.729	0.547	0.486	0.438
34	0.750	0.563	0.500	0.450
35	0.771	0.578	0.514	0.463
36	0.792	0.594	0.528	0.475
37	0.813	0.609	0.542	0.488
38	0.833	0.625	0.556	0.500
39	0.854	0.641	0.569	0.513
40	0.875	0.656	0.583	0.525
41	0.896	0.672	0.597	0.538
42	0.917	0.688	0.611	0.550
43	0.938	0.703	0.625	0.563
44	0.958	0.719	0.639	0.575
45	0.979	0.734	0.653	0.588
46	1.000	0.750	0.667	0.600
47	1.021	0.766	0.681	0.613
48	1.042	0.781	0.694	0.625
49	1.063	0.797	0.708	0.638
50	1.083	0.813	0.722	0.650
51	1.104	0.828	0.736	0.663
52	1.125	0.844	0.750	0.675

KC RACING®