

1 **Calculate the Amount of Wire for the Generator Coils**

2 (Wire Diameter Stacking Model) **STACK MODEL**

3

4 1. Using the "Given" information calculate the coil material parameters.

5

6

7 2. Produce another worksheet with the actual number of turns.

8 (if less or more than 200 turns)

9

10

11

12

Given								Calculate					Area -sq.m		
Wire Gauge #	Wire Dia (in) x	feet / pound	Ohms / 1000 ft	Turns N	Core dia. (in) d	Width (in.) W	Turns/ layer	Number of layers	Out. dia. (in.)D	Weight (oz) wt.	Coil Ohms R	Weight (g) wt.	A1	A2	A12
26	0.0159	1310	41.02	200	1.25	0.375	23.585	8.696	1.552	0.936	3.144	26.537	0.000792	0.001221	0.001006

17

18 #26 Wire Stacking

Layer	Turns/ layer	Added Dia. x	CIRCUM.	Length/ layer	
19	1	23	1	3.977	91.470
20	2	23	3	4.077	93.767
21	3	23	5	4.177	96.065
22	4	23	7	4.277	98.363
23	5	23	9	4.377	100.661
24	6	23	11	4.476	102.958
25	7	23	13	4.576	105.256
26	8	23	15	4.676	107.554
27	9	23	17	4.776	109.852
28	10	2	19	4.876	9.752
29	11				
30	12				
31					
32		209		915.699	inches
33				76.308	feet
34			with 4-in. leads	76.642	