

# Transmission and Gearing Calculation Sheet

by Ron Cook, aka "Bow\_Tied"

[Comments? Click here to email me!](#)

Copywrite Ron Cook, 2010 all rights reserved

no warranty is expressed or implied, all data is for reference use only



Welcome! This spreadsheet is for relating transmissions, tire size, axle gears, RPM, & speed. Look for small, **red triangles** in the top right of a cell - hover the mouse there for additional info. I hope you find this useful!

All comments are welcome. - Ron Cook

<b>Step 1</b>	<b>Step 2. -Enter Drive Wheel/Tire O/D</b>			
<b>Axel Ratio</b>	<i>Tire Width</i> (eg: P245)	<i>Aspect Ratio</i> (eg: 50, 60, etc.)	<i>Rim Size</i> (eg: 14", 15"etc)	<i>Tire Deflection</i> (if known, inches)
10 or 12 Bolt Chevelle	215	70	14	0
4.88				

[Chevelle OE Gear List \(internet link\)](#)

[Go to "Tire Tech" \(internet link\)](#)

<b>Step 3 -Choose Transmission from this drop down list</b>	<b>Blue cells are calculated - do not overwrite!</b>			
<b>Transmission Choices</b>	1st	2nd	3rd	4th
My Own Custom Trans	2.98	2.04	1.46	1.00
	% Drop:	31.5%	28.4%	31.5%

[What Muncie do I have? \(internet link\)](#)

<b>Step 3b. -Use <u>only</u> if "My Own Custom Trans" is chosen from Step 3</b>	<b>Blue cells are calculated - do not overwrite!</b>			
	1st	2nd	3rd	4th
My Own Custom Trans (input ratios)>	2.98	2.04	1.46	1.00

<b>Step 4</b>	<b>Driveline</b>	<b>Step 5</b>
	<b>Estimated Slippage</b>	<b>Enter ma</b>
	0.00%	

<b>RESULTS:</b>		<b>MPH</b>	<b>RPM in 1st</b>	<b>RPM in 2nd</b>
		10.0	1891	1294
	<b>Final Drive Ratio</b>	12.5	2364	1618
<b>1st</b>	14.54	15.0	2836	1942
<b>2nd</b>	9.96	17.5	3309	2265
<b>3rd</b>	7.12	20.0	3782	2589
<b>4th</b>	4.88	22.5	4255	2913
<b>5th</b>		25.0	4727	3236
<b>6th</b>		27.5		3560
		30.0		3883
		32.5		4207
		35.0		4531
		37.5		4854
		40.0		

Compared to a Muncie M20 rear axle feels like:

1st 5.77  
2nd 5.30  
3rd 4.88

4th 4.88  
4th 0.00  
4th 0.00

[Jump to Graphical Output](#)

42.5		
45.0		
47.5		
50.0		
52.5		
<b>55.0</b>		
57.5		
60.0		
62.5		
65.0		
67.5		
70.0		
72.5		
75.0		
77.5		
80.0		
82.5		
85.0		
87.5		
90.0		
92.5		
95.0		
97.5		
100.0		
102.5		
105.0		
107.5		
110.0		
112.5		
115.0		
117.5		
120.0		
122.5		
125.0		
127.5		
130.0		
132.5		
135.0		
137.5		
140.0		
142.5		
145.0		
147.5		
150.0		
152.5		
155.0		
157.5		
160.0		
162.5		
165.0		
167.5		
170.0		





<i>Wheel Diameter</i> (inches)	<i>Wheel Circumference</i> (inches)
25.85	81.21
Blue cells are calculated - do not overwrite!	

5th	6th

5th	6th

<b>Choose Red line:</b>	
<b>Max RPM:</b>	<b>5000</b>

<i>RPM in 3rd</i>	<i>RPM in 4th</i>	<i>RPM in 5th</i>	<i>RPM in 6th</i>	KPH
926	635			16.1
1158	793			20.1
1390	952			24.1
1621	1110			28.2
1853	1269			32.2
2085	1428			36.2
2316	1586			40.2
2548	1745			44.3
2779	1904			48.3
3011	2062			52.3
3243	2221			56.3
3474	2380			60.4
3706	2538			64.4

3937	2697			68.4
4169	2855			72.4
4401	3014			76.4
4632	3173			80.5
4864	3331			84.5
	<b>3490</b>			<b>88.5</b>
	3649			92.5
	3807			96.6
	3966			100.6
	4125			104.6
	4283			108.6
	4442			112.7
	4600			116.7
	4759			120.7
	4918			124.7
				128.7
				132.8
				136.8
				140.8
				144.8
				148.9
				152.9
				156.9
				160.9
				165.0
				169.0
				173.0
				177.0
				181.1
				185.1
				189.1
				193.1
				197.1
				201.2
				205.2
				209.2
				213.2
				217.3
				221.3
				225.3
				229.3
				233.4
				237.4
				241.4
				245.4
				249.4
				253.5
				257.5
				261.5
				265.5
				269.6
				273.6























Welcome to my spreadsheet for relating transmissions, tire size, RPM, and speed. I hope you find it useful.  
- Ron Cook