

Transmission and Gearing Calculation Sheet

by Ron Cook, aka "Bow_Tied"

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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

Step 1	Step 2. -Enter Drive Wheel/Tire O/D			
Axel Ratio	<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
4.56				

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

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

Step 3 -Choose Transmission from this drop down list	Blue cells are calculated - do not overwrite!			
Transmission Choices	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? \(internet link\)](#)

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

Step 4	Driveline	Step 5
	Estimated Slippage	Enter ma
	0.00%	

RESULTS:		MPH	RPM in 1st	RPM in 2nd
	Final Drive Ratio	10.0	1767	1210
1st	13.59	12.5	2209	1512
2nd	9.30	15.0	2650	1814
3rd	6.66	17.5	3092	2117
4th	4.56	20.0	3534	2419
5th		22.5	3976	2722
6th		25.0	4417	3024
		27.5	4859	3326
		30.0		3629
		32.5		3931
		35.0		4234
		37.5		4536
		40.0		4838

Compared to a Muncie M20 rear axle feels like:

1st	5.39
2nd	4.95
3rd	4.56

4th 4.56
4th 0.00
4th 0.00

[Jump to Graphical Output](#)

42.5		
45.0		
47.5		
50.0		
52.5		
55.0		
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

Choose Red line:	
Max RPM:	5000

<i>RPM in 3rd</i>	<i>RPM in 4th</i>	<i>RPM in 5th</i>	<i>RPM in 6th</i>	KPH
866	593			16.1
1082	741			20.1
1299	889			24.1
1515	1038			28.2
1731	1186			32.2
1948	1334			36.2
2164	1482			40.2
2381	1631			44.3
2597	1779			48.3
2814	1927			52.3
3030	2075			56.3
3246	2224			60.4
3463	2372			64.4

3679	2520			68.4
3896	2668			72.4
4112	2816			76.4
4328	2965			80.5
4545	3113			84.5
4761	3261			88.5
4978	3409			92.5
	3558			96.6
	3706			100.6
	3854			104.6
	4002			108.6
	4151			112.7
	4299			116.7
	4447			120.7
	4595			124.7
	4744			128.7
	4892			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

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