Gear Ratio Calculator

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Try out the metric calculator

Information on donations

This form allows you to calculate final drive ratios as well as see a comparison of speeds and RPMs within operating ranges of the vehicle. This calculator is useful for planning your rig, allowing you to see what kind of performance to expect from different combinations.

Disclaimer: This form is only to be used for estimation purposes. Exact results of combining equipment may vary from the estimates provided in this form. The data provided here is done so as-is with no warranty expressed or implied.

Note: This calculator is continually being updated. The lists of available equipment will probably never be complete. If you find that the parts you would like to use are not yet listed, please send the information to me and I will do my best to include it as quickly as possible. It has come to my attention that my grimmjeeper.com email address doesn't always forward mails to my real address. So here's one that hopefully works a little better:grimmjeeper@gmail.com

Detailed Instructions Here

BETA: Calculate your new mechanical speedometer gear here

There are two copies of the form so that you can do a side-by-side comparison of two combinations.

Step 1: Select transmission from the drop down list or, if it's not in the list and you know the gear ratios of your transmission, enter them below.

Dodge NAG1

5	Number of forward gears
3.59	1st Gear
2.19	2nd Gear
1.41	3rd Gear
1.00	4th Gear
0.83	5th Gear
	6th Gear
	Reverse

- (●) Manual or Auto with lockup torque converter
- ( ) Automatic without lockup toque converter

Step 2: Select transfer case from the drop down list or, if it's not in the list and you know the gear ratios of your transfer case, enter them below.

Enter your own number

1	High Range
2.72	Low Range
	STaK 3rd Range

Step 3: Select underdrive.

None

	High Range
	Low Range

Step 4: Select axle gear ratio.

4.88 Ratio

Step 5: Select tire size.

- (●) Inch 35
- ( ) Metric 315 / 75 R 16

Calculate Clear

The following chart lists the final drive ratio of all combined gears (transmission, transfer case, underdrive, axle) in all possible combinations

Step 1: Select transmission from the drop down list or, if it's not in the list and you know the gear ratios of your transmission, enter them below.

Dodge NAG1

5	Number of forward gears
3.59	1st Gear
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Step 2: Select transfer case from the drop down list or, if it's not in the list and you know the gear ratios of your transfer case, enter them below.

Enter your own number

1	High Range
4.00	Low Range
	STaK 3rd Range

Step 3: Select underdrive.

None

High Range
Low Range

Step 4: Select axle gear ratio.

4.1 Ratio

Step 5: Select tire size.

- (●) Inch 35
- ( ) Metric 315 / 75 R 16

Calculate Clear

The following chart lists the final drive ratio of all combined gears (transmission, transfer case, underdrive, axle) in all possible combinations

Final Drive Ratio						
	Underdrive High Range			Underdrive Low Range		
Gear	Transfer Case High Range	Transfer Case Low Range	Transfer Case STaK Range	Transfer Case High Range	Transfer Case Low Range	Transfer Case STaK Range
1	17.52	47.65				
2	10.69	29.07				
3	6.88	18.72				
4	4.88	13.27				
5	4.05	11.02				
6						
R						

The following chart lists the crawl speed you will be going while the engine is at a given RPM. Crawl speed is calculated based on the lowest low range (transfer case and underdrive in low range) available in your rig.

Crawl Speed at Given RPM in Feet Per Minute			
Gear	750 RPM	3000 RPM	5000 RPM
1	144	577	962
2	237	946	1577
3	367	1469	2449
4	518	2072	3453
5	624	2496	4160
6			
R			

Calculate

The following chart lists the road speed you will be going while the engine is at a given RPM. Road speed is calculated based on the transfer case and underdrive being in high range.

Road Speed at Given RPM in Miles Per Hour			
Gear	1500 RPM	3000 RPM	5000 RPM
1	4	18	30
2	7	29	49
3	11	45	76
4	16	64	107
5	19	77	129
6			
R			

Calculate

The following chart lists the RPMs your engine will be turning while driving at a given speed in MPH.

Road RPMs at Given Speed			
Gear	10 MPH	35 MPH	65 MPH
1	1682	5886	10932
2	1026	3591	6669
3	661	2312	4294
4	468	1640	3045
5	389	1361	2527

Final Drive Ratio						
	Underdrive High Range			Underdrive Low Range		
Gear	Transfer Case High Range	Transfer Case Low Range	Transfer Case STaK Range	Transfer Case High Range	Transfer Case Low Range	Transfer Case STaK Range
1	14.72	58.88				
2	8.98	35.92				
3	5.78	23.12				
4	4.10	16.40				
5	3.40	13.61				
6						
R						

The following chart lists the crawl speed you will be going while the engine is at a given RPM. Crawl speed is calculated based on the lowest low range (transfer case and underdrive in low range) available in your rig.

Crawl Speed at Given RPM in Feet Per Minute			
Gear	750 RPM	3000 RPM	5000 RPM
1	117	467	778
2	191	766	1276
3	297	1189	1982
4	419	1677	2795
5	505	2020	3367
6			
R			

Calculate

The following chart lists the road speed you will be going while the engine is at a given RPM. Road speed is calculated based on the transfer case and underdrive being in high range.

Road Speed at Given RPM in Miles Per Hour			
Gear	1500 RPM	3000 RPM	5000 RPM
1	5	21	35
2	9	35	58
3	14	54	90
4	19	76	127
5	23	92	153
6			
R			

Calculate

The following chart lists the RPMs your engine will be turning while driving at a given speed in MPH.

Road RPMs at Given Speed			
Gear	10 MPH	35 MPH	65 MPH
1	1413	4946	9185
2	862	3017	5603
3	555	1942	3607
4	394	1378	2558
5	327	1143	2123

6			
R			

Calculate

6			
R			

Calculate