Tires, Rims, & Gearing

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Rims/Bolt Circle size:

Measured from stud to stud: 3.23"=5.5" bolt circle. 2.93"=5.0" 2.79"=4.75" 2.64'+ 4.5" bolt circle. Flotation/Metric Conversion

Flotation	Diameter (inch)	Metric Size
27x8.5R14	26.5	225/75R14
	27.5	215/75R15
29x9.50R15	28.5	235/75R15
30x9.50R15	29.5	245/75R15
31x10.50R15	30.5	265/75R16
32x11.50R15	31.5	295/75R15
33x12.50R15	32.5	315/70R15
33x12.50R16	32.8	285/75-16

Section width: width of the tire between sidewalls NOT the tread width. Usually measured in mm and the first number on a metric tire. Such as the "235" on a 235/75R-15 tire.

Aspect Ratio: Relationship between section height/width. Aspect ratio is the "75" or "60" number in a metric rated tire. As in 235/75R-15

Tire diameter of a metric tire can be figured using:

tire dia. = 2 x section width x aspect ratio + wheel size 25.4 100

Tires/Gears/MPH/RPM

tire diameter = mph x gear ratio x 336 rpm

gear ratio = rpm x tire diameter mph x 336

mph = rpm x tire diameter gear ratio x 336

rpm = mph x gear ratio x 336 tire diameter

NOTE: For rpm's other than hwy speeds you need to figure in trans gear ratio and x-case ratio. For mph at hwy speeds use 5th gear OD ratio ie. 072:1 etc.

Actual speed: When changed to new tires and you need the actual speed withhout changing speedo drives. Bigger tires cause speedo to read slower than true speed.

actual speed = new tire dia. x indicated speed old tire dia.

Example: Old tires 28 inch, new tires 35 inch and speedo reading 60 mph

35 x 60 mph = 75 mph true speed 28

To figure what indicated speed to run to achieve actual speed use:

indicated speed = old tire dia. x actual speed new tire dia.

Actual new gear ratio with new tires:

new gear ratio = old tire dia. x old gear ratio new tire dia.

Gears to install to restore original gear ratio after new tires:

new ratio to install = new tire dia. x original gear ratio old tire dia.