

Speed Calculations:

Engine Speed _____(rpm) x Gear Ratio _____ = _____(rpm) Drive Shaft Speed

Drive Shaft Speed _____(rpm) x Driver Circumference _____(in) = _____(in/min) Distance Traveled

Now convert inches per minute to miles per hour:

Distance Traveled _____(in/min) / 12 (in/ft) = _____(ft/min)

Distance Traveled _____(ft/min) x 60 (min/hour) = _____(ft/hr)

Distance Traveled _____(ft/hr) / 5280 (ft/mile) = _____(mph)

7 tooth 2.52 pitch drivers = 17.64 inch circumference

8 tooth 2.52 pitch drivers = 20.16 inch circumference

9 tooth 2.52 pitch drivers = 22.68 inch circumference

10 tooth 2.52 pitch drivers = 25.20 inch circumference

7 tooth 3" pitch drivers = 21 inch circumference

8 tooth 3" pitch drivers = 24 inch circumference

9 tooth 3" pitch drivers = 27 inch circumference

10 tooth 3" pitch drivers = 30 inch circumference

Example:

Engine Speed 8000 (rpm) x Gear Ratio .5122 (21/41) = 4,097.6 (rpm) Drive Shaft Speed

Drive Shaft Speed 4,097.6 (rpm) x Driver Circumference 22.68 (in) = 92,933.568 (in/min) Distance Traveled

Now convert inches per minute to miles per hour:

Distance Traveled 92,933.568 (in/min) / 12 (in/ft) = 7,744.464 (ft/min)

Distance Traveled 7,744.464 (ft/min) x 60 (min/hour) = 464,667.84 (ft/hr)

Distance Traveled 464,667.84 (ft/hr) / 5280 (ft/mile) = 88.005 (mph)