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Tonka

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Transmission

Gear	Diameter (inch)	Number of teeth
One	5	28
Two	7	38
Three	9	48

Table 1: Front gear assembly specifications

Gear	Diameter (inch)	Number of teeth
One	4	28
Two	$3\frac{1}{2}$	24
Three	$3\frac{1}{4}$	21
Four	3	18
Five	$2\frac{3}{4}$	16
Six	$2\frac{1}{4}$	14

Table 2: Rear gear assembly specifications

Gear	Diameter (inch)	Number of teeth
Upper	$1\frac{3}{4}$	11
Lower	$1\frac{3}{4}$	11

Table 3: Derailleur gear assembly specifications

Front gear	Rear gear	Gear Ratio
One	One	1
One	Two	1.1667
One	Three	1.3333
One	Four	1.5556
One	Five	1.7500
One	Six	2
Two	One	1.3571
Two	Two	1.5833
Two	Three	1.8095
Two	Four	2.1111
Two	Five	2.3750
Two	Six	2.7143
Three	One	1.7143
Three	Two	2
Three	Three	2.2857
Three	Four	2.6667
Three	Five	3
Three	Six	3.4286

Table 4: All possible gear ratios

Linkages

Bearings