

Gear Ratio Model

This is an aid to making the correct choice of sprockets/pulleys/wheel and tyre sizes

This shows how the model works - To make it work for your application load up disc on Excel and alter the data to find the correct pulley/sprocket sizes

Wheel dia can be estimated by using this formula.....Nominal tyre size(ie.18in) + profile ratio as % x width profile x 2

The dia of a 180/60 x 18in tyre = 18 + (180 x 60% x 2 divided by 25.4) = 26.5in

More accurate overall tyre diameters can be obtained direct from tyre manufacturers

OEM Sprockets

Engine	Clutch	Transmission	Final Drive
24	37	32	70 85-93
24	37	32	61 93 softail
25	37	32	70 94up
25	37	32	65 95 softail

Final Belts

Available Belt Length>>>

- 125 Find out from
- 126 frame maker
- 127 belt length or
- 128 chain length
- 130 to fit their
- 132 swingarms
- 133 Example of some
- 135 shown here>>>
- 136

Transmission Belt sizes for HPU Swingarms

Pulley	61*	65*	70*
29	na		132 na
30		130 na	na
31	na		135 na
32		132	136 na
33		133 na	na

Belt sizes for Cobra Swingarms

61*	65*	70*
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Belt sizes for SCS Swingarms

61*	65*	70*
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Do not change columns F, J, K

Insert data in other columns to arrive at correct pulley/sprocket/wheel/tyre sizes

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I	Column J	Column K
Peak		Transmission Pulley			Final	Optional info	Optional info	Overall	Overall	Speed
Power RPM	Engine Sprocket	Clutch Sprocket	Transmission Sprocket	Rear Sprocket	Drive Ratio	Wheel Size(dia)	Tyre Size	Dia	Circumference	RPM at
1000	24	37	32	61	2.94			625	6.44	25
2000	24	37	32	61	2.94			625	6.44	50
3000	24	37	32	61	2.94			625	6.44	75
4000	24	37	32	61	2.94			625	6.44	100
5000	24	37	29	61	3.24			625	6.44	113
5100	24	37	32	61	2.94			625	6.44	127
5200	24	37	32	61	2.94			625	6.44	130
5300	24	37	32	61	2.94			625	6.44	132
5400	24	37	32	61	2.94			625	6.44	135
5500	24	37	32	61	2.94			625	6.44	137
5600	24	37	32	61	2.94			625	6.44	140
5700	24	37	29	61	3.24			625	6.44	129
5800	24	37	32	61	2.94			625	6.44	144
5900	24	37	32	61	2.94			625	6.44	147
6000	24	37	32	61	2.94			625	6.44	149
	24	37	32	61	2.94			625	6.44	0
	24	37	32	61	2.94			625	6.44	0
	24	37	32	61	2.94			625	6.44	0
5400	24	37	32	61	2.94			625	6.44	135

* Rear Belt Pulley Teeth