

## Other

### Pinion & Spur

By making changes to your spur and pinion gears, you can influence your car's speed of acceleration and top end speed. **To your question of "How do I go faster?" the answer is found here!**

#### How do I know which combination to use?

- Use the following combination of pinion and spur gears in the 2 speed to maintain the correct gear mesh.
  - 20/24 with 52/48
  - 21/25 with 52/48
  - 22/26 with 52/48
  - 23/27 with 52/48
- The bigger the final drive number, the **faster acceleration** you will get. The lower the number, the **more top end** it will have.
  - To figure out the final drive number, do the math:  
**spur gear** divided by **clutch bell pinion gear** x transmission ratio of **2.5** = final drive ratio.
 

Example:

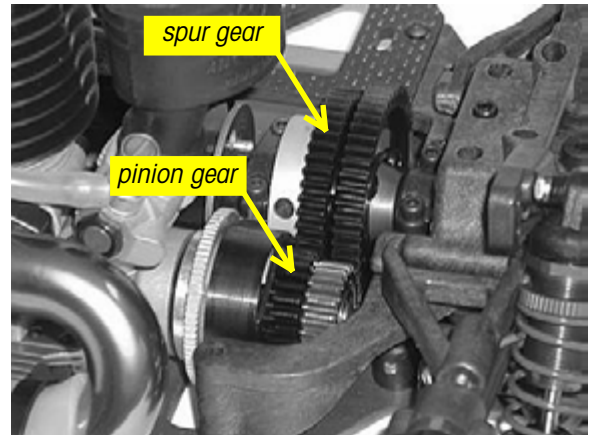
(54 divided by 20) x 2.5 = 6.75 (fastest acceleration, lowest top speed)

(54 divided by 21) x 2.5 = 6.43 (next fastest acceleration)

(54 divided by 22) x 2.5 = 6.14 (next fastest acceleration, more top speed)

#### On setup sheet

You mark which spur/pinion gear combinations you used. 1st gear is the set of gears toward the rear of the car. 2nd gear is the set toward the front.



**Fig. 1** Here are the spur and pinion gears. First gear of each is on the right (toward the rear).

#### TIP

The following have less difference in speed and acceleration than list at left. The following could be useful in small and tight tracks, where you usually run your car with single speed gearbox instead of a two-speed gearbox. (Figures are based on 4 gear separation. Factory Drivers sometimes go as high as a 6 gear split.)

50 or 48 (2nd gear)	54 or 52 (1st gear)
50/27 = 4.62	54/23 = 5.86
50/26 = 4.80	54/22 = 6.13
50/25 = 5.00	54/21 = 6.42
50/24 = 5.20	54/20 = 6.75
48/27 = 4.44	52/23 = 5/65
48/26 = 4.61	52/22 = 5.90
48/25 = 4.80	52/21 = 6.19
48/24 = 5.00	52/20 = 6.50

#### Product info

- #2263, 48 tooth Spur Gear (2nd)
- #2264, 50 tooth Spur Gear (2nd)
- #2265, 52 tooth Spur Gear (1st)
- #2266, 54 tooth Spur Gear (1st)