

IMAO IDLE SPROCKETS & PULLEYS**Features of Materials Used****Engineering Plastic**

- Special plastic reinforced by polyamide, super tough nylon, molybdenum, glass fiber and others, which is excellent in mechanical properties and resistant to wear, shocks and chemicals, and also is used for wheel sprockets of motorcycles in Europe and USA.
- Working temperature : Between -30°C and 170°C
- Allows silent drive even without lubrication.
- Ensures double longer chain service life than steel.

Steel

- Allows long-time use even in heavy-duty or high-speed drive applications.

Features of Bearings Used**Ball Bearing**

- Designed for medium-duty and medium-speed drive.
- Allows oilless drive.
- Allows silent drive.

Needle Bearing

- Designed for heavy-duty and high-speed drive.
- Needs greasing

Average Bearing Service Life and Radial Loads

- The pages of the idle sprockets and pulleys state radial loads for some typical revolutions per minute, which are based on the assumption that the average bearing service life is 3,000 hours.

- When using idle sprockets or pulleys for 3,000 hours or longer, determine applicable radial loads based on proper factors stated in the right table using the formula given below.

Applicable Radial Load for Desired Average Bearing Service Life = Radial Load for 3,000 Hours of Average Bearing Service Life x Factor

- It is recommended that a safety factor of 0.8 be considered in determining radial loads in drive applications where idle sprockets or pulleys receive strong vibrations or shocks.

Factors by Type of Bearing

Average Life (Hours)	Bearings	
	Ball	Needle
500	1.82	1.71
1,000	1.44	1.39
1,500	1.26	1.23
2,000	1.14	1.13
2,500	1.06	1.06
3,000	1.00	1.00
4,000	0.91	0.92
5,000	0.84	0.86
6,000	0.79	0.81
7,000	0.75	0.78
8,000	0.72	0.75
9,000	0.69	0.72
10,000	0.67	0.70
15,000	0.58	0.62
20,000	0.53	0.57



Ball



Needle