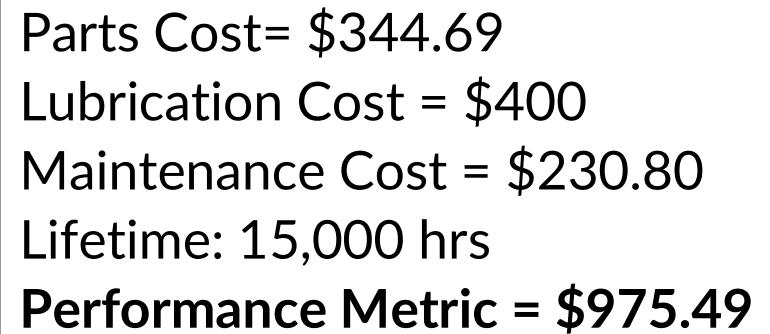


# C2



- ## Key Assumptions

- Roller chains are not as loud as the candy
- Intermediate shaft will not affect loading conditions
- Chordal speed variations are negligible for 17 tooth sprockets or higher
- A 0.33% difference from desired speed is acceptable

# CALCULATED VALUES

Design Parameters		
Required Reduction	1:10	Motor speed of 1200 RPM is reduced 120 RPM
Service Factor	1.3	Electric Motor with moderate load
Nominal Horse Power	1 hp	Given as motor specs
Power Values		
Design Power	3.25 hp	Equation 17 – 38
Tabulated Power (Chain 1)	3.29 hp	Table 17 – 20
Tabulated Power (Chain 2)	4.54 hp	Table 17 – 20
Safety Factors		
Chain 1	2.53	$n_{fs} = \frac{K_1 K_2 H_{tab}}{H_{nom} K_s}$
Chain 2	3.49	$n_{fs} = \frac{K_1 K_2 H_{tab}}{H_{nom} K_s}$
Lubrication Types and Chain No.		
Chain 1	Type B (No. 41)	Table 17 – 20
Chain 2	Type A (No.60)	Table 17 – 20
Reliability Factor (Kr) Values		
Chain 1	3.4	Equation 17 – 33 notes
Chain 2	17	Equation 17 – 33 notes