SECTION I. TIRE WEAR FACTORS

The tire wear factors used in this pamphlet are listed in appendix D. The “useful life” of a new tire is the product of Condition Factors (CF) from I through V, the Wheel Position Factor (WPF), the Grade Factor (GF) (for Drive Tires only) and the Miscellaneous Condition (MC). These factors provide a percentage reduction to the maximum tire life. See chapter 2 for tire cost methodology. Condition Factors, Wheel Position Factors, Grade Factor, and Miscellaneous Condition are derived from the Caterpillar Performance Handbook. The factors shown below are examples specifically for a bottom dump wagon.

	Condition Factors (CF):	**Average**	**Severe**
I.	Maintenance	0.981	0.763
II.	Speed	0.872	0.763
III.	Surface Condition	0.981	0.763
IV.	Loads	0.981	0.709
V.	Curves	0.981	0.872
CF	Product of the factors (I x II x III x IV x V)	0.808	0.275
	Wheel Position Factors (WPF):		
VI.	WPF-FT Front Tire (FT)	0.981	0.981
VII.	WPF-DTR Drive Tire (DT) - Bottom Dump	0.872	0.872
VIII.	WPF-TT Trailing Tire (TT)	1.09	1.09
IX.	Grade Factor (GF) (Drive Tires Only)	0.981	0.872
X.	Miscellaneous Condition (MC)	0.981	0.981

SECTION I. TIRE WEAR FACTORS (Continued)		Average	Severe
Front Tire-Average =			
(CF = .808)(WPF-FT = 0.981)(MC = 0.981)	=	.78	
Front Tire-Severe =			
(CF = .275)(WPF-FT = 0.981)(MC = 0.981)	=		.26
Drive Tire-Average =			
(CF = .808)(WPF-FT = 0.872)(MC = 0.981)	=	.69	
Drive Tire-Severe =			
(CF = .275)(WPF-FT = 0.872)(MC = 0.981)	=		.23
Trailing Tire-Average =			
(CF = .808)(WPF-FT = 1.09)(MC = 0.981)	=	.86	
Trailing Tire-Severe =			
(CF = .275)(WPF-FT = 1.09)(MC = 0.981)	=		.29

SECTION II. MAXIMUM TIRE LIFE

Maximum tire life is used in the formula to determine tire wear cost. It is located in appendix F and categorized by tire type.