

# Pole Carrying Recommendations

## General

Sauber Mfg. Co. builds standard extendible tongue pole trailers w/ five length adjustment positions. This bulletin serves as a guide in recommending what size poles should be carried in various positions. It is always assumed that the pole will be carried with the butt end (heavy end) towards the front and that the pole front will be within 1' of the hitch front. The calculations below are based on standard minimum butt and top circumference measurements for the class pole indicated. The pole trailer length required for Sauber Extendible Tongue Pole and Combination Trailers can be calculated by the formula:

$$(TC / (TC + BC)) * TW * PL + UB + 1 = \text{ Pole Trailer Length Required}$$

Where:

TC = Top Circumference (IN)

BC = Butt Circumference (IN)

TW = Tongue Weight Transfer (Use 1.15 for Tandems; 1.20 for Single)

PL = Pole Length (FT)

UB = Center Undercarriage to Trailer Rear (FT)

## Recommendations

The following formula indicates the minimum length you need to extend your pole trailer in order to carry the target pole. If your requirements include carrying larger poles within the confines of the extendible tongue, you could consider lowering the target tongue weight transfer to 10% or 15%. In this case, substitute 1.10 or 1.15 respectively for TW in the formula below. Tongue weight is an important consideration. Too much can raise rear truck axle weights to unacceptable levels and de-load the front axle, causing steering and control problems. Too little tongue weight will result in reduced trailer control while towing.

$$(TC / (TC + BC)) * (TW * PL) + UB + 1$$

(Wood Pole Data Chart Next Page)



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<b>Wood Pole Data Chart</b>					
<b>Class</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Min Top Dia</b>	8.6"	8.0"	7.3"	6.7"	6.0"
<b>Length</b>	<b>Min Dia 6' From Butt Weight For Southern Yellow Pine (.45# Penta /.60# CCA)</b>				
<b>35'</b>	12.4" 1309/1672 Lbs	11.6" 1139/1368 Lbs	10.8" 985/1182 Lbs	10.0" 855/1026 Lbs	9.2" 739/888 Lbs
<b>40'</b>	13.0" 1630/1956 Lbs	12.2" 1410/1692 Lbs	11.4" 1224/1470 Lbs	10.7" 1060/1272 Lbs	9.9" 919/1104 Lbs
<b>45'</b>	13.7" 1965/2358 Lbs	12.9" 1705/2046 Lbs	11.9" 1475/1770 Lbs	11.1" 1280/1536 Lbs	10.3" 1110/1332 Lbs
<b>50'</b>	14.3" 2329/2796 Lbs	13.4" 2020/2424 Lbs	12.4" 1750/2100 Lbs	11.6" 1519/1824	
<b>55'</b>	14.8" 2714/3475 Lbs	13.8" 2355/3014 Lbs	12.9" 2040/2611 Lbs	12.0" 1769/2266 Lbs	
<b>60'</b>	15.3" 3130/4006 Lbs	14.3" 2710/3469 Lbs	13.4" 2349/3008 Lbs	12.4" 2035/2605 Lbs	
<b>65'</b>	15.8" 3550/4550 Lbs	14.8" 3079/3942 Lbs	13.8" 2670/3418 Lbs		
<b>70'</b>	16.2" 4005/5126 Lbs	15.3" 3474/4448 Lbs	14.3" 3009/3853 Lbs		
<b>75'</b>	16.7" 4475/5728 Lbs	15.6" 3885/4973 Lbs	14.6" 3365/4307 Lbs		
<b>80'</b>	17.1" 4965/6355 Lbs	16.1" 4305/5510 Lbs			



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