

MAXIMUM PERMIT WEIGHT FORMULAS

$$W = T / (L + 4)$$

- “W” - The value of the equivalent distributed load expressed in pounds per linear foot.
- “T” - The sum of the axle loads or equivalent axle loads of any group of two or more axles expressed in pounds. Any combination of axle loads may be considered as a group, up to the total number of axles for the unit.
- “L” - The length between axles, expressed in feet and measured to the nearest inch, from the center of the first axle to the center of last axle in the axle group, series of groups, or total axles for the unit.

A unit with axle groups composed of various numbers of tires per axle or with axle groups with a gauge distance greater than 6.0 feet on each axle may have additional reduction factors applied to each axle before summing “T.” The revised equivalent axle load is calculated by the following formula.

$$A = (RS)(\text{THE AXLE LOAD})$$

- “A” - Equivalent axle load for axles with gauge greater than 6.0 feet and/or more than four tires.
- “R” - A reduction factor for a unit with a gauge distance greater than 6.0 feet, calculated by the following formula.

$$R = (6.0 + G) / (2 G)$$

- “G” - The gauge distance, expressed in feet and measured to the nearest inch, from the center of the outside dual wheels on one side of the axle to the center of the outside dual wheels on the opposite side of the axle. The gauge distance of an axle equipped with two tires per axle must be measured to the nearest inch from center of tire to center of opposite tire.
- “S” - A reduction factor based on the number of tires per axle.
 - S = 1.0 for axles with four or fewer tires, and
 - S = 0.96 for axles with eight tires.