

40 C.F.R. § 1037.530

Wind-tunnel procedures for calculating drag area (CdA).

The wind-tunnel procedure specified in this section is considered to be the primary procedure for trailers, but is an alternate procedure for tractors.

- (a) You may measure drag areas consistent with published SAE procedures as described in this section using any wind tunnel recognized by the Subsonic Aerodynamic Testing Association, subject to the provisions of §§ 1037.525 through 1037.527. If your wind tunnel does not meet the specifications described in this section, you may ask us to approve it as an alternate method under § 1037.525(d) or § 1037.526(d). All wind tunnels and wind tunnel tests must meet the specifications described in SAE J1252 (incorporated by reference in § 1037.810), with the following exceptions and additional provisions:
- (1) The Overall Vehicle Reynolds number, $Re\#_W$, must be at least 1.0·10 . Tests for Reynolds effects described in Section 7.1 of SAE J1252 are not required.
- (2) For full-scale wind tunnel tractor testing, use good engineering judgment to select a trailer that is a reasonable representation of the trailer used for reference coastdown testing. For example, where your wind tunnel is not long enough to test the tractor with a standard 53 foot box van, it may be appropriate to use a shorter box van. In such a case, the correlation developed using the shorter trailer would only be valid for testing with the shorter trailer.

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