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(R) Brake and Electrical Connection Locations—Truck-Tractor and Truck-Trailer

1. Scope—This SAE Recommended Practice establishes the recommended locations for the air brake and electrical connections for the back of a truck-tractor and the front of a truck-trailer.

2. References

2.1 Applicable Publications—The following publications form a part of the specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 SAE PUBLICATIONS—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15906-0001.

SAE J318—Automotive Air Brake Line Couplers (Gladhands)
SAE J560—Seven-Conductor Electrical Connector for Truck-Trailer Jumper Cable
SAE J849—Connection and Accessory Locations for Towing Multiple Trailers

2.1.2 FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION PUBLICATION—Available from FMCSA, 400 7th Street, S.W., Washington, D.C. 20590.

FMCSR Part 399, Subpart L, “Step, Handhold, and Deck Requirements on Commercial Motor Vehicles.”

2.2 Related Publications—The following publications are provided for information purposes only and are not a required part of this document.

2.2.1 INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO) PUBLICATION—Available from ISO Copyright Office, Case postale 56, CH-1211 Geneva.

ISO 4009 “Commercial Vehicles – Location of electrical and pneumatic connections between towing vehicles and trailers”

2.2.2 TECHNOLOGY AND MAINTENANCE COUNCIL – AMERICAN TRUCKING ASSOCIATION RECOMMENDED PRACTICE—Available from The Maintenance Council, American Trucking Association, 2200 Mill Road, Alexandria, VA 22314-5388.

RP 703B “Electrical and Gladhand Connector Placement”

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SAE WEB ADDRESS:

3. Truck-Tractor Brake and Electrical Connections

- 3.1 Truck-Tractor Fittings**—Fittings for stowing the cable and hose shall be located on the back of the cab within the area shown in Figure 1. For ergonomic reasons, connections should be located as low and as far roadside as possible.
- 3.2 Truck-Tractor Electrical Connections**—These should be mounted between the air connectors. The electrical connector should meet the provisions contained in SAE J560. Any auxiliary electrical connections should be placed just in-board from the J560 connector.
- 3.3 Truck-Tractor Brake Connections**—The brake connector should meet the provisions contained in SAE J318.

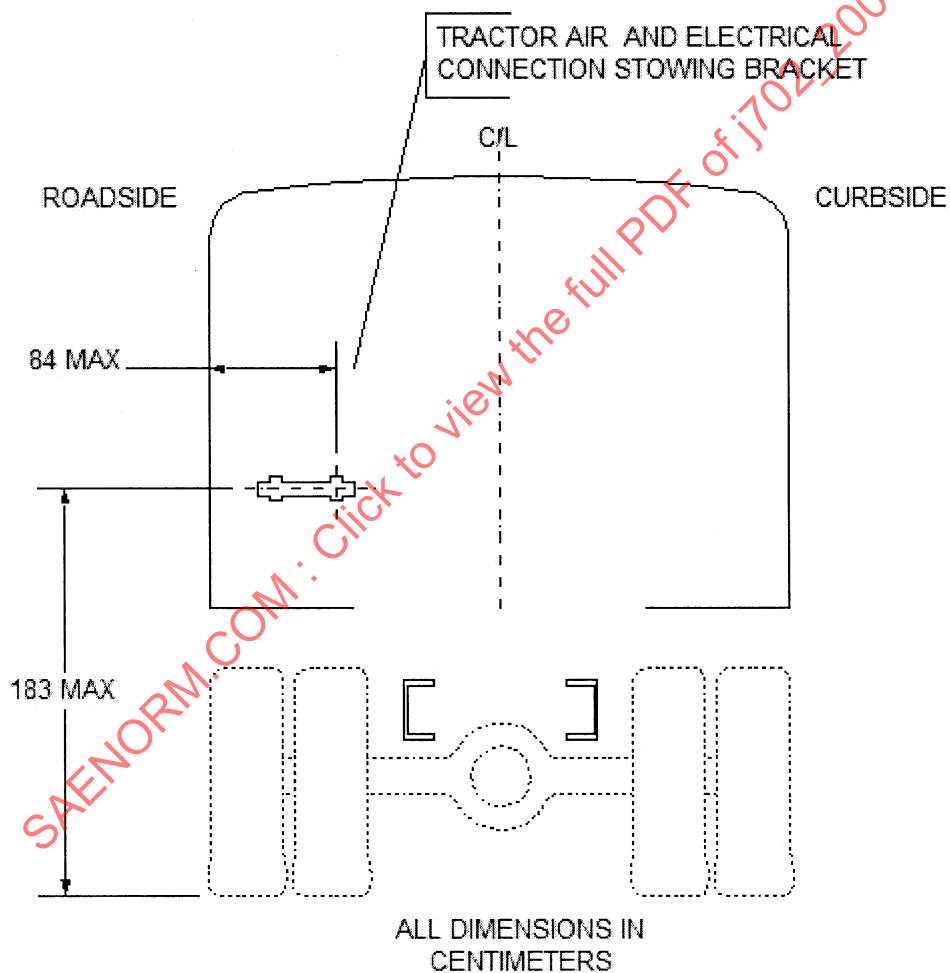


FIGURE 1—BACK OF CAB - RECOMMENDED LOCATIONS

3.4 Jumper Hose and Cable Length—Care should be exercised in calculating hose and electrical jumper cable lengths to make certain that there will be sufficient length to accommodate the back of cab to nose of trailer locations shown at all degrees of trailer articulation.

3.5 High Profile Cabover Engine Truck-Tractor Brake and Electrical Connection Access—If these connections are located such that they are not accessible (as defined in FMCSR Part 399, Subpart L), then access steps, handholds, and/or deck plates should be provided in accordance with FMCSR Part 399, Subpart L, "Step, Handhold, and Deck Requirements on Commercial Motor Vehicles.

4. Truck-Trailer Brake and Electrical Connections

4.1 Brake Connections—Trailer-mounted air hose couplings should be mounted on the front within the area shown in Figure 2. For ergonomic reasons, connections should be mounted as low and as far roadside as possible.

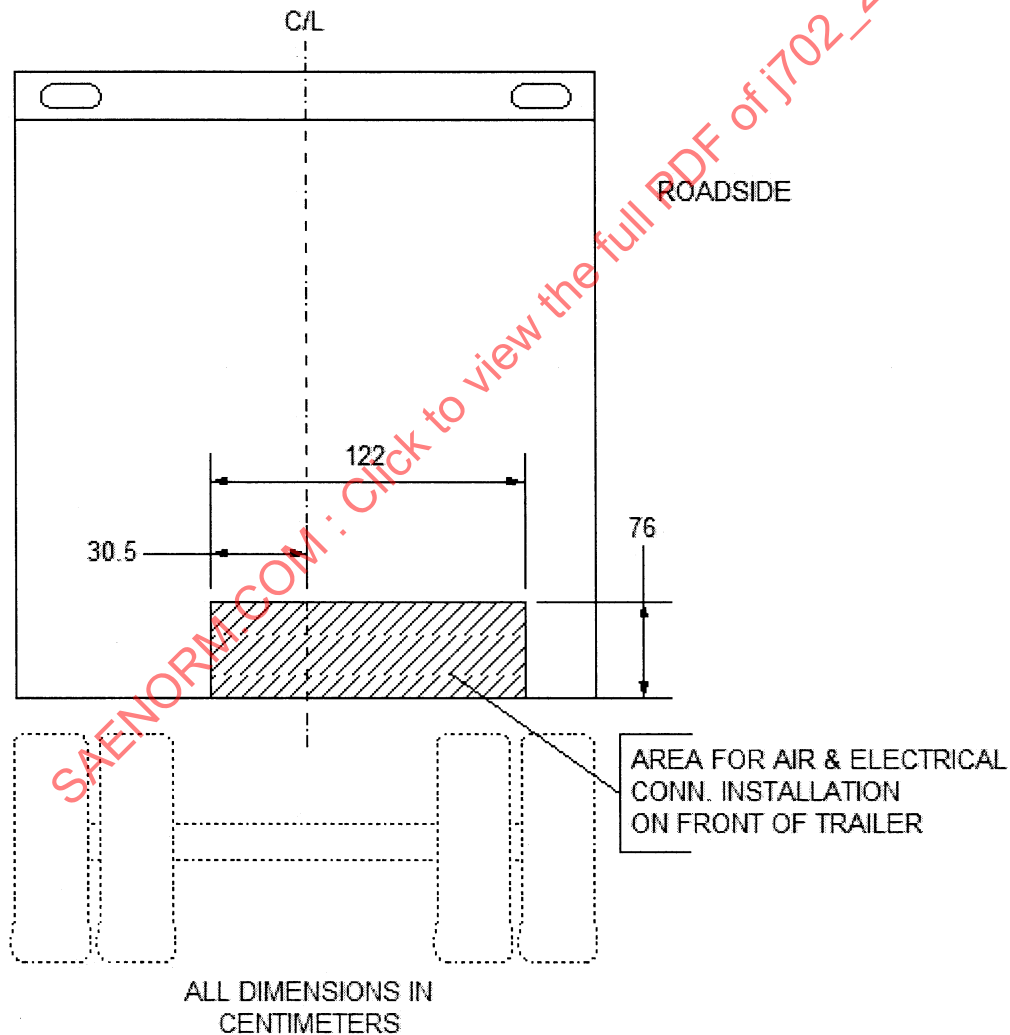


FIGURE 2—FRONT OF TRAILER - RECOMMENDED LOCATION

- 4.2 Electrical Connection**—The trailer-mounted electrical connector receptacle should be mounted between the air connectors. The electrical connector should meet the provisions contained in SAE J560. Any auxiliary electrical connectors should be mounted just in-board from the J560 connector.
- 4.3 Brake and Electrical Connections at the Rear of a Truck-Trailer**—Brake and Electrical Connections at the Rear of a Truck-Trailer – When truck-trailers are being equipped as “lead” trailers to pull a full trailer, refer to accessory locations contained in SAE J849.
- 5. Relative Location of Air Lines**
- 5.1 Control (Service) Line**—Curbside in relation to other line.
- 5.2 Supply (Emergency) Line**—Roadside in relation to other line. It is suggested that the same relative location of airlines and air-line fittings be carried throughout the entire vehicle combination; that is, tractor, nose of semi-trailer, rear of semi-trailer, and nose of full trailer.
- 6. Notes**
- 6.1 Marginal Indicia**—The change bar (I) located in the left margin is for the convenience of the user in locating areas where technical revisions have been made to the previous issue of the report. An (R) symbol to the left of the document title indicates a complete revision of the report.

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