Chapter 9.2: requirements for electrical connections

Transmitted by the International Association of the Body and Trailer Building Industry (CLCCR)

Summary

Executive summary: The purpose of this document is to allow in 9.2.2.6.3 an electrical connection for equipment with high current consumption, for example tailgate lifts and electrical forklifts.

Action to be taken: Amend the provisions in 9.2.2.6.3 for electrical connections.

Introduction

1. Three types of connections are currently prescribed in 9.2.2.6.3 of ADR, one (ISO 12098) for vehicle lighting and general low voltage supply, one (ISO 7638) for anti-
lock or electronic braking systems and another one (EN 15207) for permanently energized equipment.

2. However other applications require additional connections for electronically monitored charging systems in order to connect an additional battery pack on the trailer with the generator of the motor vehicle for use with, for example, tailgate lifts and electrical forklifts.

3. The following proposal is to add to the standards currently prescribed in 9.2.2.6.3.

Proposal

4. Modify 9.2.2.6.3 as follows:

“9.2.2.6.3 Electrical connections

   Electrical connections between motor vehicles and trailers shall have a protection degree IP54 in accordance with IEC 60529 and be designed to prevent accidental disconnection. Connections shall be in conformity with ISO 25891:2008\(^{(3)}\), ISO 12098:2004\(^{(3)}\), ISO 7638:2003\(^{(3)}\) and EN15207:2006 as appropriate.”.

Justification

5. ISO 25891 standard has been developed by Technical Committee ISO/TC 22, Road vehicles, Subcommittee SC3, Electrical and electronic equipment. This electrical connection is intended for use with motor vehicle / trailer combinations in order to connect an additional battery pack on the trailer with the generator of the motor vehicle using an electronically monitored charging system. Additional battery packs on trailers are typically used with tailgate lifts, electrical forklifts and other technical equipment with high current consumption. The electronic monitoring system is designed to detect 12 V and 24 V nominal supply voltage and to limit the current to 50 A.

6. The connection described in this standard provides an identical level of safety as that of ISO 12098.

Safety

7. No problem.

Feasibility and applicability

8. Facilitates the application of ADR.