

Informal document GRRF-82-29
82nd GRRF, 20-23 September 2016
Agenda item 3(e)

RVIA

The logo for RVIA features the letters 'RVIA' in a bold, white, sans-serif font. Below the letters is a gold-colored swoosh that starts as a thin line on the left and widens into a thick, triangular shape on the right, pointing towards the bottom right corner.

The RVIA logo is positioned in the top right corner. It consists of the letters "RVIA" in a bold, white, sans-serif font. A thick, yellow diagonal line runs from the bottom left of the "V" to the bottom right of the "A", passing behind the letters.

Recreation Vehicle Electric Brakes under UN R13

Craig Kirby

Bruce Hopkins |

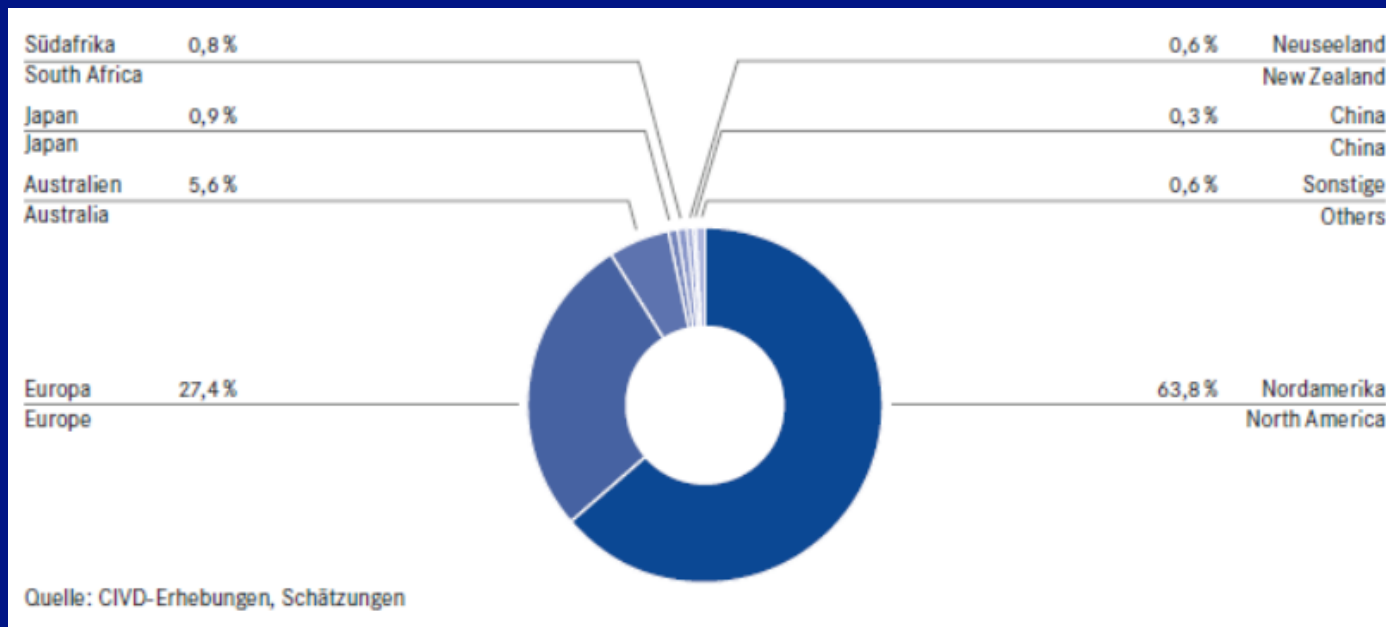
September 2016



The Recreation Vehicle Industry Association (RVIA) is the national trade association representing 400 recreation vehicle (RV) manufacturers and their component parts suppliers who together build more than 98 percent of all RVs produced in North America.

North America is the largest market for recreational vehicles in the world. Wholesale shipments in 2015 totaled 374,246. There are approximately 10 million units in operation.

North America produces the most RVs (almost twice as many units as the rest of the world combined on an annual basis). Industry reports in 2013 show that North America accounted for 63.8% of world production, followed by Europe for 27.4%.



Two main types of recreation vehicles (“RV”): **Motorized** (also known as “motorhomes” or “motor caravans”) and **Towable** (also known as “travel trailers” or “caravans”)

Motorized

Towable



Type A



Traditional



Expandable



Type B



Fifth Wheel



Folding Camper



Type C



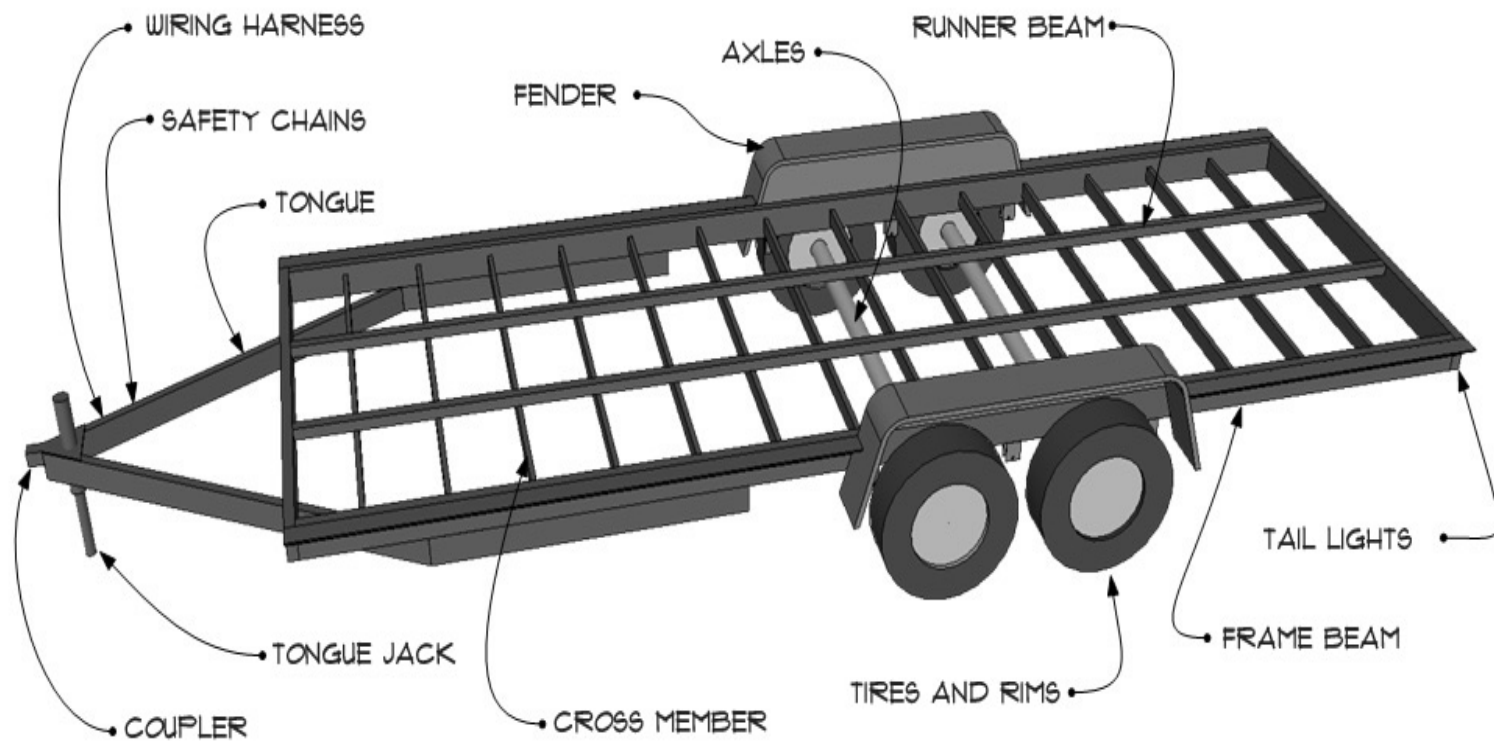
Sports Utility



Truck Camper









**We are not addressing commercial trailers
as shown here...**



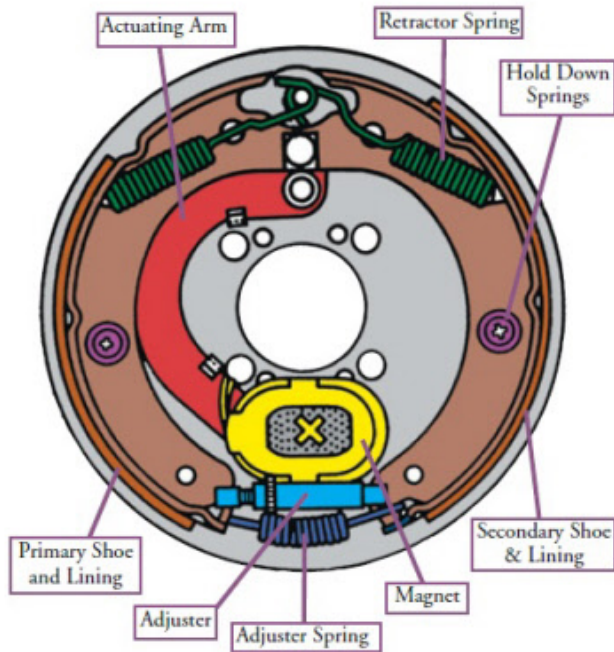
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...or here.



Example of electric brake used on RVs:



CSA CAN3-D313 – Trailer Running Gear



- The North America recreation vehicle industry adheres to Standard CAN3-D313 (Trailer Running Gear) with regard to trailer braking performance.
- No reported safety issues with D313 – compliant systems

UN R13 and Annex 14

- 5.2.2.2. Trailers of category O₂ shall be equipped with a service braking system either of the continuous or semi-continuous or of the inertia (overrun) type. The latter type shall be permitted only for centre axle trailers. However, electrical braking systems conforming to the requirements of Annex 14 to this Regulation shall be permitted.

RV Electric Braking Dilemma

- UN R13 is the global type approval standard for trailer braking
- CP's applying UN R13 require approval certification
- Paragraph 5.2.2.2. has been interpreted as restricting electric braking to O₂ trailers
- As a result RVIA has been unable to obtain Technical Service support to test O₃ trailers equipped with electric braking for R13 compliance
- Result is a *de facto* design restriction regardless of vehicle performance
- CAN 3D313 provides a basis for objective performance testing of trailers equipped with electric brakes in North America
- North American accident data do not indicate a safety issue with recreational vehicle braking



Questions

- Is it correct that an O₃ recreational trailer cannot be approved under UN R13?
- If not, can GRRF clarify R13?
- If so, would GRRF agree to establish a group to address the type approval of category O₃ recreational trailers equipped with electric brake systems?

Thank you for this opportunity.

**RVIA stands ready to support GRRF,
including vehicle testing to resolve this
concern.**

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