



CTA WEIGHTS AND DIMENSIONS INITIATIVES

Meeting of the National Task Force on Vehicle Weights and Dimensions Policy

Toronto, November 25, 2008

CTA Direction

- Implement components of CTA's Enviro-Truck to benefit carriers and the environment including:
- Weight Exemptions for APU's and New Engine Technology;
- Length Exemptions for extended length Boat Tails;
- Weight Increases for Wide Based Tires;
- Weight and Length Exemptions for Moose Bumpers;
- Weight Exemptions for Trailer Skirts.

APU's and New Engines

Background on APU/New Engines

- Installed to reduce emissions and idling;
- APU's voluntary, but becoming de facto standard with increasing restrictions on idling in North America;
- Engine technology is regulated – no choice;
- The weight of these devices takes away from payload;
- Weight exemptions will assist in offsetting weight penalties associated with this technology and increase acceptance across the industry;



Boat Tails

Background on Boat Tails

- Industry is looking at ways to achieve increased fuel efficiency to offset increased fuel consumption from '07 engines and benefit environment.
- Attaching aerodynamic devices to rear of trailers has been identified as one way to increase fuel economy.
- Boat Tails are estimated by NRC and FP Innovations to improve fuel efficiency by up to 5% in wind tunnel and on-track testing.
- Truck Manufacturers Association and US DOE estimate savings of one billion gallons of fuel annually through use of aerodynamic devices.

Evolving Boat Tail Design



Evolving Boat Tail Design



Evolving Boat Tail Design



Evolving Boat Tail Design



Challenge

- How can boat tails be installed on trailers without compromising safety concerns related to:
 - rear out-swing;
 - trailer under-ride protection and;
 - lighting and conspicuity.

05'-06' Solution

- Develop a partnership between government and industry to examine ways in which these devices could be installed on trucks.
- A partnership was formed between Robert Transport, Ministry of Transportation, Ontario and the Ontario Trucking Association.

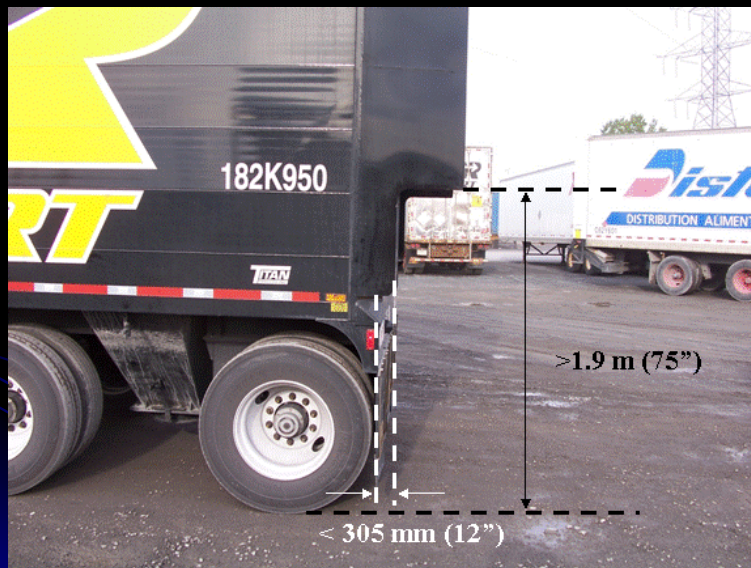
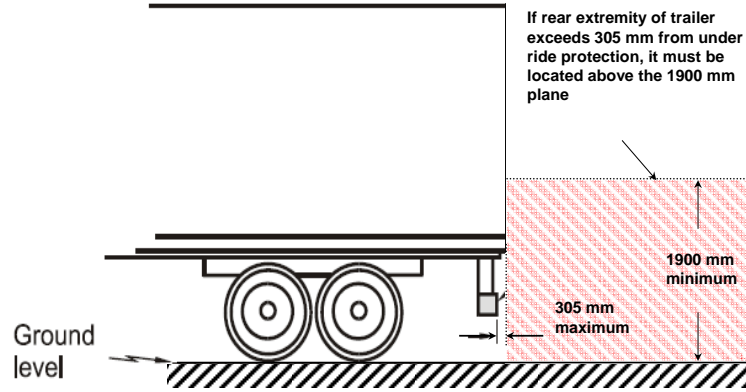
Desired Outcome 06'

- To provide a permit to operate the trailers on Ontario highways;
- Incorporate Boat Tails into Regulation;
- Incorporate Boat Tails into MoU.

Progress 06'-07'

- Permits made available in Ontario;
- Boat Tails were incorporated into MoU in 2007;
- Boat Tails permitted were a compromise to meet rear under-ride and out swing considerations;

Side view of trailer





Current Situation

- As Boat tail designs evolve dimensions allowed in MoU do not allow carriers to install the most fuel efficient devices;
- Transport Robert will operate the MoU spec Boat Tail in Toronto – Montreal operations as part of Transport Canada Freight Demonstration Projects;
- Results of MoU spec boat tail expected to be less than 2% fuel savings.

Challenge 08'-09'

- Dimensions of New Generation Boat Tails are outside envelope set in MoU for rear under-ride protection;
- How to allow these new devices on Canadian vehicles for maximum fuel efficiency;
- New generation boat tails can still meet 35% rear overhang and conspicuity requirements.

Solution 08'- 09'

- Develop policy to allow the use of extended length boat tails;
- Adopt language and requirements found in US regulations that permits extended length boat tails, provided they are not of sufficient strength to cause damage to vehicles that may impact rear of trailer;

Solution 08' – 09' (con't)

- CTA Recommends that Canadian Provinces explore options for reciprocity between Canada and the US related testing devices with dimensions outside envelope of MoU as they relate to rear under-ride protection or:
- Allow manufactures options to explore similar process in Canada.



Wide Based Tires

Wide Based Single Tires

- Fuel efficiency tests have shown these tires to save up to 5% in fuel;
- Cost benefit analysis conducted in Ontario indicated a benefit of 3:1 over costs when operating wide based tires at 9,000 kgs per axle;
- At 50% uptake on trucks traveling on Ontario's highways a switch to wide base single tires could lead to an overall reduction in GHG's by 135,000 metric tonnes, the equivalent of removing 90,000 cars from the highways.



Wide Based Single Tires

- Recent MoU changes allow weights up to 7,700 kgs per axle in most jurisdictions;
- Ontario and Quebec allow weights up to 9,000 kgs per axle;
- In order for Canadian carriers to take full advantage of wide based tires and to level the playing field with US carriers all jurisdictions will be required to raise weight allowances on wide based tires;



Wide Based Single Tires

- CTA recommends the MoU be revised to allow 9,000 kgs per axle in Eastern Canada and 8,500 kgs per axle in Western Canada for the use of Wide Based Single Tires.

Moose Bumpers

Moose Bumpers

- Weight and Length provisions for these devices not currently addressed in MoU;
- Provide added protection for driver, other motorists and vehicle components;
- Reduced downtime from animal strikes;
- Use of these devices is desired by Canadian carriers.



Moose Bumpers

- CTA recommends the MoU be amended to provide a 200 lbs weight exemption from the gross vehicle weight and an exclusion from measurement of overall length of vehicle for the use of Moose Bumpers.

Trailer Skirts



Trailer Skirts

- Energo Test 07' Test Results indicate trailer skirts Improves fuel economy by up to 6.5%;
- Additional testing will be completed and documented during Transport Canada Eco Freight Demonstrations in both Eastern and Western Canada;

Trailer Skirts



Trailer Skirts

- CTA recommends the MoU be revised to allow a 500 lbs weight exemption from the gross vehicle weight for tractor semi-trailers using Trailer Skirts.

Questions/Discussion

