

# 14 m Inter-city Coaches

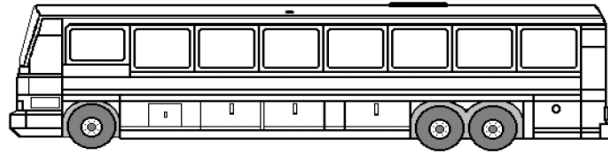
Task Force on Vehicle Weights & Dimensions Policy  
Government-Industry Meeting  
November 22, 2010



## Motor Coach Canada

- National trade association representing 130 bus companies and 95 motor coach tour operators
- Motor coach operators provide charter, shuttle, commuter, transit, contract and scheduled line run services
- The only passenger mode that serves over 3,000 rural communities in addition to the major centers
- Unlike transit and passenger rail we are not subsidized and our taxes and permits pay for our use of the highway infrastructure
- Canada is home to the two largest motor coach manufacturers in Canada and the United States. **Prevoist** coaches built in Quebec and **MCI** coaches built in Winnipeg have supplied over 80% of the coaches operated today in Canada and the US

# MOU "Category 8" - Inter-city 14 m Bus



Max 7250 kg

Single Axle (single tires) - Max 6067 kg  
 Single Axle (dual tires) - Max 9100 kg  
 Tandem Axle - Max 17000 kg

Concern!

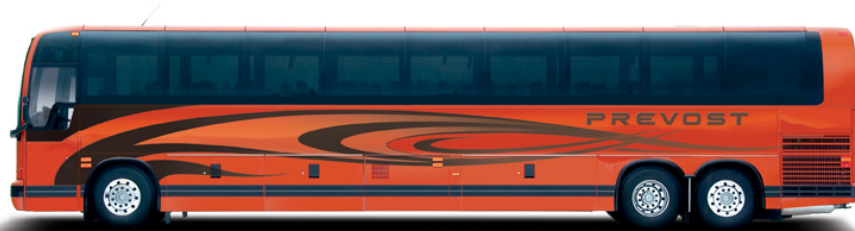
Concern!

WEIGHT	LIMIT
<b>Axle Weights:</b>	
Steering Axle	Maximum 7250 kg <b>Concern!</b>
Single Axle (dual tires)	Maximum 9100 kg* <b>Concern!</b>
Single Axle (single tires)	Maximum 6067 kg* <b>Concern!</b>
Tandem Axle	Maximum 17 000 kg*
<b>Gross Vehicle Weight Limits:</b>	
Two axles	Maximum 16 350 kg
Three axles (8 tires)	Maximum 20 900 kg <b>Concern!</b>
Three axles (10 tires)	Maximum 24 250 kg <b>Concern!</b>

Note (\*) - When there is more than one axle at the rear of the vehicle, the load carried by the group must be distributed between axles in a ratio corresponding to the number of tires on each axle.

Concern!

# Typical 14 m Inter-city Coach



↑  
 Front Axle Tire Size 315 R22.5  
 MGAWR: Approx. 7,000 – 7,500 kg

↗  
 Single (Drive) Axle  
 With Dual Tires

↑  
 Single Axle, Single Tires  
 Size 315 R22.5  
 MGAWR Approx. 7,000 – 7,500 kg

## Coaches are getting heavier

- Emission abatement
- Wheelchair lifts
- On-board amenities – galleys, washrooms, entertainment systems
- Passengers getting bigger
- Accessibility devices (motorized chairs and scooters)
- Three point seat belts
- Safety improvements – ABS, ESC, fire suppression, fire hardening/retardant



## Operating Weights

- **Tare weight** – 16,000 kg to 17,900 kg
- **Typical MGVWR** - 22,000 kg – 25,000 kg
- **Payload Weight** (@ 75 kg/passenger plus 16 kg/passenger luggage) = 5,100 kg for 56 passenger coach, 7,371 kg for 81 passenger double-decker
- **Fully loaded**, GVW's can range from 21,200 kg (56 passenger coach) to 24,300 kg (81 passenger double-decker)

## MOU Weight Limits

- MOU allows only **20,900 kg GVW** (three axles, 8 tires)
- MOU allows only **9,100 kg** on drive axle
- MOU (2:1 ratio) allows only **13,650 kg** on drive axle / tag axle group

*Virtually every fully loaded motor coach in Canada and those visiting Canada from the USA exceed these weights by a significant margin.*

14.0 m ACTUAL EMPTY BUS AXLE WEIGHT (kg)				
CAPACITY		PREVOST H345 56	MCI J4500 56	VAN HOOL DD 81
FRONT SINGLE AXLE		5,216	4,971	5,010
DUAL DRIVE AXLE		7,738	7,629	7,911
SINGLE TAG AXLE		4,917	5,389	5,040
<b>TOTAL BUS WEIGHT</b>		<b>17,871</b>	<b>17,989</b>	<b>17,961</b>
PASSENGER BAGGAGE (kg)				
BAGGAGE PER PASSENGER	16	896	896	1,296
<b>TOTAL BUS &amp; BAGGAGE</b>		<b>18,767</b>	<b>18,885</b>	<b>19,257</b>
BUS GVW (kg)				
WEIGHT PER PASSENGER	60	3,360	3,360	4,860
<b>BUS GVW</b>		<b>22,127</b>	<b>22,245</b>	<b>24,117</b>
WEIGHT PER PASSENGER	65	3,640	3,640	5,265
<b>BUS GVW</b>		<b>22,407</b>	<b>22,525</b>	<b>24,522</b>
WEIGHT PER PASSENGER	70	3,920	3,920	5,670
<b>BUS GVW</b>		<b>22,687</b>	<b>22,805</b>	<b>24,927</b>
WEIGHT PER PASSENGER	75	4,200	4,200	6,075
<b>BUS GVW</b>		<b>22,967</b>	<b>23,085</b>	<b>25,332</b>
WEIGHT PER PASSENGER	80	4,480	4,480	6,480
<b>BUS GVW</b>		<b>23,247</b>	<b>23,365</b>	<b>25,737</b>