

# HGV TRAINING

Special Programs for Professional Drivers



- Standardised Training Modules
- Multifunctional usage
- Enhance skills and knowledge
- Influence drivers' behaviour
- Create safety awareness



## Road Safety Training - Basics



Knowledge	Skills	Awareness
<ul style="list-style-type: none"> <li>➤ Correct seating position (specific for HGVs or busses) due to active and passive safety</li> <li>➤ Correct adjustment of the steering wheel and the mirrors</li> <li>➤ Alternation of load (influences, consequences and dangers)</li> <li>➤ Correct viewing and steering technique to drive in a smooth and safe way</li> </ul>	<p><b>Participants learn to:</b></p> <ul style="list-style-type: none"> <li>➤ Adjust the seat especially the height and the weight adjustment</li> <li>➤ Apply correct viewing and steering techniques</li> <li>➤ Steer in a smooth way and drive foresighted to be able to react to dangers very early</li> <li>➤ Avoid hard alternations of load</li> </ul>	<p><b>Participants become aware of:</b></p> <ul style="list-style-type: none"> <li>➤ Measures to increase active and passive safety</li> <li>➤ The importance of the seat belt</li> <li>➤ Dangers of a wrong seat position</li> <li>➤ Importance of getting on and off the vehicle (the truck) in a safe way</li> <li>➤ The influence of speed on centrifugal forces</li> <li>➤ The advantages of a foresighted viewing technique and a smooth driving style</li> </ul>





## Road Safety Training – Emergency Braking



Knowledge	Skills	Awareness
<ul style="list-style-type: none"> <li>➤ How to optimize the braking distance (with the respective vehicle)</li> <li>➤ Influence of speed on the reaction and braking distance</li> <li>➤ Influences of weight, tires, road surface and other factors on braking distances</li> <li>➤ Possible behavior of the vehicle in emergency braking situations in respect to the technical equipment (electronic systems, transmission system)</li> <li>➤ Functionality of ABS</li> <li>➤ Correct emergency braking behavior with and without ABS</li> </ul>	<p><b>Participants learn to:</b></p> <ul style="list-style-type: none"> <li>➤ Apply the correct sequence of actions to achieve the shortest braking distance that is possible with the respective vehicle</li> <li>➤ Use the correct braking method due to their vehicle</li> </ul>	<p><b>Participants become aware of:</b></p> <ul style="list-style-type: none"> <li>➤ The influence of speed on stopping distances</li> <li>➤ The influence of weight, tires and other factors on braking distances</li> <li>➤ The fact that with a heavy vehicle the braking distance will be longer than with a passenger car or a motorbike</li> <li>➤ The possible behavior of the vehicle and the reasons for unwanted vehicles' behavior</li> </ul>



## Road Safety Training – Brake and Avoid



Knowledge	Skills	Awareness
<ul style="list-style-type: none"> <li>➤ The correct sequence of actions for a braking and avoiding maneuver due to the vehicle (with and without ABS)</li> <li>➤ The correct viewing and steering technique in emergency braking situations</li> <li>➤ Possible reactions of the vehicle in braking and steering situations and correct countermeasures</li> <li>➤ Influence of the vehicle's weight and of load alternations on the vehicle's behavior</li> </ul>	<p><b>Participants learn to:</b></p> <ul style="list-style-type: none"> <li>➤ Apply the correct sequence of actions in emergency braking and steering situations due to their vehicle</li> <li>➤ Use the correct viewing and steering technique</li> <li>➤ Recognize undesired behavior of the vehicle and respond correctly</li> <li>➤ Make decisions in stressful situations</li> </ul>	<p><b>Participants become aware of:</b></p> <ul style="list-style-type: none"> <li>➤ The complexity of emergency braking and steering situations (many factors influence the situation)</li> <li>➤ The influence of speed on the possibility to handle such maneuver</li> <li>➤ The importance of electronically supporting systems (ABS)</li> <li>➤ The difficulty to overview emergency situations and find the best way of acting</li> <li>➤ The effects and dangers of driving mistakes and false estimations in such situations</li> </ul>



## Road Safety Training – Cornering



Knowledge	Skills	Awareness
<ul style="list-style-type: none"> <li>➤ Reasons for unwanted reactions of the vehicle (understeering, oversteering or rolling over) due to centrifugal forces and alternation of load</li> <li>➤ Counter measures when the vehicle shows unwanted reactions due to centrifugal forces and alternation of load</li> <li>➤ Correct viewing and steering technique</li> <li>➤ Influence of load and of electronic and technical equipment</li> </ul>	<p><b>Participants learn to:</b></p> <ul style="list-style-type: none"> <li>➤ Use the correct viewing and steering techniques</li> <li>➤ Recognize unwanted behavior of the vehicle very early</li> <li>➤ Apply the correct sequence of actions when the vehicle starts to understeer or oversteer</li> <li>➤ Recognize the danger to roll over and react properly</li> </ul>	<p><b>Participants become aware of:</b></p> <ul style="list-style-type: none"> <li>➤ The influence of speed on centrifugal forces</li> <li>➤ The causes of unwanted behavior of the vehicle, especially the effects and dangers of driving mistakes</li> <li>➤ The fact that speed requires space (which normally is limited in traffic)</li> <li>➤ The difficulty to assess such driving situations and to chose the best sequence of actions</li> </ul>



## Road Safety Training – Driving with a Trailer



Knowledge	Skills	Awareness
<ul style="list-style-type: none"> <li>➤ Influence of the trailer on the behavior of the vehicle</li> <li>➤ Influence of the combination of truck and trailer; different types of trailers</li> <li>➤ Counter measures when the vehicle shows unwanted reactions due to centrifugal forces and alternation of load</li> <li>➤ Correct viewing and steering technique</li> <li>➤ Electronic and technical equipment in connection with the trailer</li> </ul>	<p><b>Participants learn to:</b></p> <ul style="list-style-type: none"> <li>➤ Use the correct viewing and steering techniques when driving with a trailer /an articulated truck</li> <li>➤ Recognize unwanted behavior of the vehicle and/or the trailer very early</li> <li>➤ Apply the correct sequence of actions when the vehicle starts to understeer or oversteer</li> <li>➤ Recognize the danger to roll over and react properly</li> </ul>	<p><b>Participants become aware of:</b></p> <ul style="list-style-type: none"> <li>➤ The influence of speed on centrifugal forces</li> <li>➤ The causes of unwanted behavior of the vehicle, especially the effects and dangers of driving mistakes</li> <li>➤ The fact that speed requires space (which normally is limited in traffic)</li> <li>➤ The difficulty to assess driving situations and to chose the best sequence of actions</li> </ul>





## Tanker Training – Roll Over Prevention



Knowledge	Skills	Awareness
<ul style="list-style-type: none"> <li>➤ Reasons for roll over s (load distribution, steering behavior)</li> <li>➤ Counter measures when the vehicle shows unwanted reactions due to centrifugal forces and alternation of load</li> <li>➤ Behavior to avoid roll over</li> <li>➤ Influence of load and of electronic and technical equipment</li> </ul>	<p><b>Participants learn to:</b></p> <ul style="list-style-type: none"> <li>➤ Use the correct viewing and steering techniques</li> <li>➤ Recognize unwanted behavior of the vehicle very early</li> <li>➤ Apply the correct sequence of actions when the vehicle starts to tilt</li> <li>➤ Recognize the danger to roll over and react properly</li> </ul>	<p><b>Participants become aware of:</b></p> <ul style="list-style-type: none"> <li>➤ The influence of speed on centrifugal forces</li> <li>➤ The causes of unwanted behavior of the vehicle, especially the effects and dangers of driving mistakes</li> <li>➤ The fact that speed requires space (which normally is limited in traffic)</li> <li>➤ The difficulty to assess driving situations and to chose the best sequence of actions</li> </ul>





## HGV – Eco Driving Training



Knowledge	Skills	Awareness
<ul style="list-style-type: none"> <li>➤ Influence of driving style on fuel consumption</li> <li>➤ Reduction of air resistance, rolling resistance, and acceleration resistance</li> <li>➤ Planning the trip</li> <li>➤ Torque and power progress, combustion and the influence on fuel consumption</li> <li>➤ Acceleration, driving, braking and stopping in a fuel saving way</li> </ul>	<p><b>Participants learn to:</b></p> <ul style="list-style-type: none"> <li>➤ Drive in a foresighted and eco friendly way</li> <li>➤ Recognize traffic situations early and react to them</li> <li>➤ Use the correct gear and shift gear at the optimal moment</li> <li>➤ Use the rolling energy and avoid unnecessary braking and stopping</li> </ul>	<p><b>Participants become aware of:</b></p> <ul style="list-style-type: none"> <li>➤ The advantages of a foresighted and fuel saving driving style</li> <li>➤ Their personal benefit of a foresighted and anticipatory driving style</li> <li>➤ The possibility to reduce fuel consumption and become faster</li> </ul>



## HGV – Load Safety Training



Knowledge	Skills	Awareness
<ul style="list-style-type: none"> <li>➤ Legal background</li> <li>➤ Forces on the load and friction values</li> <li>➤ Load securing equipment and correct usage</li> <li>➤ Securing methods (blocking, top over lashing, direct lashing)</li> <li>➤ Calculation of securing forces and use of tables</li> </ul>	<p>Participants learn to:</p> <ul style="list-style-type: none"> <li>➤ Find the best securing method for the respective cargo</li> <li>➤ Assess the vehicle and the securing equipment</li> <li>➤ Use the lashing equipment correctly</li> <li>➤ Determine the required number of lashings according to the chosen securing method</li> </ul>	<p>Participants become aware of:</p> <ul style="list-style-type: none"> <li>➤ The forces on the load during driving</li> <li>➤ The load securing possibilities of different HGV's</li> <li>➤ The influence of friction and how to increase it</li> <li>➤ The advantages/disadvantages of the available load securing methods</li> </ul>





## Prooven Success

- ***„The trainings have significantly reduced the accident rate by 65%.“***,  
F. Hensel (CEO, REWE International AG, food & drug retailing industry with 40,000 employees)
- ***„Our accident rate reduced by 95% within the last 15 years of training.“***,  
P. Klacska (Managing Director, Klacska Austria Groupd, logistical solutions in the distribution of petroleum products)
- ***„Rollover incidents decreased dramatically by the synergies of a high quality training in relationship with top truck technologies on board.“***,  
T. Bütow (Safety Advisor, BP Europe SE, internationally active oil and energy company)
- ***„12% less accident rate with the last 3 years and a significant reduction of costs for fuel.“***,  
P. Blaguss (CEO, Blaguss Reisen GmbH, bus company and travel agency with 600 connections within Europe)



## Safety Training (Tanker Driver)



- Started 1990
- Integrated in BP HSSE System
- Special training with “Anti-Rollover Vehicle”
- Modular Training
  - Road Safety
  - Defensive Driving, Video Feedback
  - Economy Driving, Loading Safety
  - Healthcare, etc.

### Results (after 1.5 years):

- Rollover accidents: reduced by 80%
- Rear-end collisions on wet roads: reduced by 60%

### Consequence:

Every driver has to receive special selection, education and further education programs annually.



## Safety Training (Fleet Management)



- BILLA is a member of REWE Group Germany (an international supermarket chain)
- They maintain a fleet of 550 vehicles
- On average, there are 1.7 accidents caused by each of their drivers annually.
- The average cost per accident is € 2,400 / \$ 3,000 (not including consequential costs)
- Approximately € 2.2 mio / \$ 2.8 mio of the costs involved with these accidents are borne by the insurance company annually
- The insurance company committed BILLA drivers to attend Testing and Training programs.
- This training consisted of specialized training and real life situations with video analysis

### Results (after 1.5 years):

- Accident rate was reduced from 935 to 605 annually
- Reduction of accident costs by **€ 792,000 / \$ 1 mio** annually

## Training on Fuel Training (Bus Driver)



- 140 busses in use, 80 drivers participated in the training
- 2 day training (combination of driving safety and economy training)
- Investment approx. € 600 / \$ 760 per participant (incl. working time)
- Each bus covers a distance of approx. 80,000 km / 50,000 miles per year and uses up 30-32 liters / 8 gallons of fuel per 100 km / 62miles
- This is a saving of 72,000 liters / 19,000 gallons diesel fuel per year for 60 busses

### Short-term result:

- Approx. 10% reduction of fuel consumption

### Long-term result:

- A consistent reduction of 5%





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