

## EVSC Ad-Hoc Working Group

EVSC05-09

At the EVSC meeting held on 25 January document EVSC 05/08 was presented to provide an indication of potential compatibility problems that may arise when there certain specifications of towing vehicle and trailer are coupled. The respective matrixes have been produced to clarify the specification of both the towing vehicle and the trailer with respect to the powering and data communications. Additional options have been included where the towing vehicle or trailer may have some form of stability control function however the interface between the two vehicles is only a 5 Pin ISO7638 connector therefore data communications is not available.

## Combination Compatibility with Respect to Stability Enhancement

### Semi-Trailer Combinations

Tractor Specification		Trailer Specification													
		TSF	ISO 7638	TSF	ISO 7638	TSF	ISO 7638	TSF	ISO 7638	TSF	ISO 7638	TSF	ISO 7638	TSF	ISO 7638
VSF	ISO7638	None	None	None	5 Pin	TROC	5 Pin	TROC + TDC	5 Pin	None	7 Pin	TROC	7 Pin	TROC + TDC	7 Pin
None	None	No Change		No Change		No Change		No requirement for Directional Control (TDC) on a semi-trailer		No Change		No Change		No requirement for Directional Control (TDC) on a semi-trailer	
None	5 Pin	No Change		No Change		Improvement				No Change		Improvement			
DC	5 Pin	Improvement		Improvement		Improvement				Improvement		Improvement			
DC + ROC	5 Pin	Improvement		Improvement		Improvement				Improvement		Improvement			
None	7 Pin	Improvement		Improvement		Improvement				Improvement		Improvement			
DC	7 Pin	Improvement		Improvement		Improvement				Improvement		Improvement			
DC + ROC	7 Pin	Improvement		Improvement		Improvement				Improvement		Improvement			

## Centre Axle Trailer Combinations

Truck Specification		Trailer Specification													
		TSF	ISO 7638	TSF	ISO 7638	TSF	ISO 7638	TSF	ISO 7638	TSF	ISO 7638	TSF	ISO 7638	TSF	ISO 7638
VSF	ISO7638	None	None	None	5 Pin	TROC	5 Pin	TROC + TDC	5 Pin	None	7 Pin	TROC	7 Pin	TROC + TDC	7 Pin
None	None	No Change		No Change		No Change		No Change		No Change		No Change		No Change	
None	5 Pin	No Change		No Change		Improvement		Improvement		No Change		Improvement		Improvement	
DC	5 Pin	Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>	
DC + ROC	5 Pin	Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>	
None	7 Pin	No Change		No Change		Improvement		Improvement		No Change		Improvement		Improvement	
DC	7 Pin	Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified		Compatibility to be verified		Compatibility to be verified	
DC + ROC	7 Pin	Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified		Compatibility to be verified		Compatibility to be verified	

1/ Potential compatibility problem as no electric control line is available on one or both elements of the combination therefore it is not possible to identify whether the trailer is a centre axle trailer or full trailer, transmit the vehicle specifications or to limit functionality of the towing vehicle or trailer based on the vehicle specification.

## Full Trailer Combinations

[illegible]

VSF	ISO7638	None	None	None	5 Pin	TROC	5 Pin	TROC + TDC	5 Pin	None	7 Pin	TROC	7 Pin	TROC + TDC	7 Pin
None	None	No Change		No Change		No Change		No Change		No Change		No Change		No Change	
None	5 Pin	No Change		No Change		Improvement		Improvement		No Change		Improvement		Compatibility to be verified	
DC	5 Pin	Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>	
DC + ROC	5 Pin	Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>	
None	7 Pin	No Change		No Change		Improvement		Improvement		No Change		Improvement		Compatibility to be verified	
DC	7 Pin	Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified		Compatibility to be verified		Compatibility to be verified	
DC + ROC	7 Pin	Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified <sup>1/</sup>		Compatibility to be verified		Compatibility to be verified		Compatibility to be verified	

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