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ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on the Transport of Dangerous Goods

Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods

Bern, 8-11 September 2009 and Geneva, 14-18 September 2009 Item 3 of the provisional agenda

STANDARDS

<u>Characterization of CEN standard revisions and its impact on transition regulations for type approvals</u>

Transmitted by the European Committee for Standardisation (CEN) 1,2

Background

1. During its session in March 2009, the Joint Meeting adopted the report of the informal working group "Period of validity of type approvals and transitional measures for standards", transmitted by the European Cylinder Makers Association (ECMA) with the exemption of item No. 17 and some clarifications related to 1.8.7.2.4 and 6.8.2.3.3), (document ECE/TRANS/WP.15/AC.1/2009/3).

¹ In accordance with the programme of work of the Inland Transport Committee for 2006-2010 (ECE/TRANS/166/Add.1, programme activity 02.7 (c)).

² Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2009/44.

2. This informal working group had been installed to harmonize the text of ADR/RID with the regulations of the EU Transportable Pressure Equipment Directive (TPED) related to the validity of EC Type-examination certificates (ten years) and the option of its renewal. ECMA had requested that this feature of the TPED is transferred into the new section 1.8.7 to cover RID/ADR type approval certificates.

Following the ECMA request transitional provisions will be necessary if standards mentioned in type approval certificates are superseded in the RID/ADR, to allow the continued use of such type approvals until they can be updated to reference the equivalent current standard.

The Joint Meeting asked the informal working group to consider the addition of text to 1.8.7.2 and to discuss the possible transition measures to permit the extended use of superseded standards in these type approvals.

3. In its report the Group proposed the revision of the tables in 6.2.4.1 and 6.2.4.2 with references to CEN standards for non-UN pressure receptacles and in 6.8.2.6.1 and 6.8.2.6.2 with references to CEN standards for tanks, battery-wagons/vehicles and MEGCs.

These tables indicate all the changes necessary for the 2011 editions of the RID/ADR with the exception of the withdrawal dates for superseded standards. The working group requested that the Working Group on Standards (STD's WG) examine these standards and determine the appropriate date for withdrawal of the type approvals.

Column (5) shows the latest date at which an existing type approval must be withdrawn for safety reasons. In the case that the standard replacing an older version offers only incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR, the working group believes that existing type approvals should continue to be valid until their expiry, i.e. to a maximum of ten years if no earlier date is given in the type approval. If, on the other hand, the new version of the standard leads to full compliance with the latest applicable version of RID/ADR and/or to important safety benefits, the existing type approvals then shall be deemed no longer in compliance with RID/ADR and shall be withdrawn within the two years transitional period allowed for the adoption of the new standard. This decision on the necessary withdrawal date would be determined by the Joint Meeting, based on a recommendation from the STD's WG.

Action to be taken

4. With the adoption of this proposal by the Joint Meeting the STD's WG is now asked to assess the character of any revision of a standard referenced in old and new version in the above mentioned tables to be either as incremental change or of a significant nature, as specified above. These assessments shall be agreed upon during the September 2009 meeting of the STD's WG. To allow for a proper judgement, this document has been set up to trace back to the texts of the standards and assessments from the CEN Consultant as dispatched to the Joint Meeting delegates, as well as a summary describing the changes between old and new versions.

5. The following tables have been taken from the ECMA-report, shortened to those standards which are taken into reference in different stages, where a decision on the transition regulation shall be prepared.

To allow for a comparison and characterization of the standards revisions, information on earlier dispatches by CMC to the Joint Meeting delegates and related assessments by the CEN consultants have been added. Descriptions of the revisions are also added. This information has been taken from the Foreword of the revised standards – if provided – or been prepared by involved experts.

This document and the tables, in particular, shall be used to prepare transition regulations in form of dates to confirm or replace the dates in square brackets in the fifth column of the following tables.

Reference	Title of document	Applicable sub-sections and	Applicable for new type approvals or	Latest date for withdrawal of existing type	
		paragraphs	for renewals	approvals	
for design and construction					
EN 1442:1998 + AC:1999	Transportable refillable welded steel cylinders for liquefied petroleum gas (LPG) - Design and construction.	6.2.3.1 and 6.2.3.4	Between 1 July 2001 and 30 June 2007	[31 December 2012]	

Text and assessment by CEN consultant not dispatched.

Conclusions of Assessment dated 14.5.97:

The standard covers all but one (see clause 7) essential requirements of RID/ADR on the subject as outlined in the table at the end of the assessment. The comments in the detailed assessment are mainly addressing the fact that this standard allows to use and to mark cylinders with a test pressure higher than the design pressure. This has no effect on the overall safety of the design (see also clause 7.2.3.1) but necessitates to reinforce the limitation of this allowance to LPG butane in order to avoid change of service outside butane and propane.

Conclusions of Assessment dated 14.5.97:

The standard covers all essential requirements of RID/ADR on the subject as outlined in the table at the end of the assessment. The comments in the detailed assessment are mainly addressing the fact that this standard allows to use and to mark cylinders with a test pressure higher than the design pressure. This has no effect on the overall safety of the design (see also clause 7.2.3.1) but necessitates to reinforce the limitation of this allowance to LPG butane in order to avoid change of service outside butane and propane.

Decision of STD's WG (Meeting):

EN 1442:1998 + A2:2005	Transportable refillable welded steel cylinders for liquefied petroleum gas (LPG) - Design and construction	6.2.3.1 and 6.2.3.4	Between 1 January 2007 and 31 Decemb er 2010	[31 December 2012]
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Text dispatched 2004-09, Dispatch 3; Assessment by CEN consultant not dispatched.

Description of revision from EN 1442:1998+AC:1999 to EN 1442:1998 + A2:2005:

The amendment updated the standard to align with the requirements for cylinder marking in the ADR/RID.

Conclusions of Assessment dated 25.11.2005:

This standard is a revision of EN 1442:1998 that is already referred to in 6.2.2 of ADR/RID. The standard includes the amendment A1 and A2 also adopted as reference documents by the Joint Meeting.

The design requirements are the same as in the 1998 version except for the following:

in 4.1: materials not limited to EN 10120 in 4.1;

in 75.1.4: extended table for the bend test to cover materials with high Rm

in 7.6.2.1: minimum burst pressure is 35 bar instead of 50 bar;

in 9.7.3.4: for cyl. >6 L and burst pressure >100 bar, the mechanical tests in production may be replaced with a burst test.

These new requirements are in conformity with the provisions of ADR..

Decision of STD's WG:						
Characterization as incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR			compliance			
Reasoning:						
EN 1442:2006 + A1:2008	Transportable refillable welded steel cylinders for liquefied petroleum gas (LPG) - Design and construction		2.3.1 and 2.3.4	Until further notice		
Text and assessment	of CEN consultant dispatched	200	7-09, Dispa	tch 3.		

Description of revision from EN 1442:1998+A2:2005 to EN 1442:2006 + A1:2008:

Modification of Clauses:

- 2 (Normative References updated),
- 5.1.3 minimum test pressure requirement brought in line with ADR 4.1.4 P200.
- 7.7.1.2 (Minimum test pressure as stated in 5.1.3 above),
- 7.8.1 (Reference rel. to Radiography of welds),
- 10 and Annex A (Cylinder marking aligned with the ADR/RID requirements).

Conclusions of Assessment dated 31.5.2007:

The Standards Working Group identified essentially three issues:

- the allowance to apply a test pressure above the calculation pressure;
- reference to the minimum test pressures in ADR/RID 4.1.4, P200;
- consistency with the ADR/RID marking provisions

The second issue was not addressed. The response on the third item was deemed inadequate in the first assessment and caused it to become negative.

The text of the second submission now adequately addresses all of the concerns expressed by the Standards Working Group. An adoption of the revised text should now be possible.

Decision of STD's WG:

	Characterization as incremental changes not	Characterization: Revision led to full
	affecting conformity of the type with the latest	compliance with the latest applicable
	applicable version of RID/ADR	version of RID/ADR and/or to important
		safaty hanafits

Reasoning:

EN 1800:1998/AC:1999	Transportable gas cylinders - Acetylene cylinders - Basic requirements and definitions	6.2.1.1.9	Between 1 July 2001 and 31 Decemb er 2010	[31 December 2012]
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Text and assessment by CEN consultant not dispatched.

Conclusion of assessment dated 17.2.1997:

The standard covers all essential requirements of RID/ADR on the subject as outlined in the table at the end of the assessment. There is no contradiction between any part of the standard and these requirements. The comments on clause 3.2 are more of an editorial nature.

EN 1800:2006	Transportable gas cylinders - Acetylene cylinders -	6.2.1.1.9	Until further	
	Basic requirements,	0.2.1.1.9	notice	
	definitions and type testing			

Text and assessment by CEN consultant dispatched 2006-09, Dispatch 2 FV.

Conclusion of assessment dated 22.4.06:

As part of the 5 year revision/confirmation of all EN standards, this standard is a revision of EN 1800: 1998 that was introduced - with its corrigendum- as a reference document in the 2001 edition of ADR/RID.

The revision adds a new sub-clause about joggle welds in 4.2.1 and updates the reference to other standards published in the meantime and brings a few editorial changes.

The standard covers all essential requirements of RID/ADR on the subject as outlined in the table at the end of the assessment. There is no contradiction between any part of the standard and these requirements.

Description of revision from EN 1800:1998/AC:1999 to EN 1800:2006

The 2006 edition's new safety requirements are:

- 1. welded cylinders use butt or joggle joints only (5.2.1 a))
- 2. joggle joints shall be verified as free of porous material voids and movement which might damage to the porous material (4.2.4)
- 3. extending an approval to include bigger sizes requires a new set of elevated temperature tests (5.4.3 b)).

Summary; the changes will give safety improvements, but it is a question of judgement whether these are sufficiently significant to necessitiate withdrawal of existing type approvals. Seamless cylinders are unaffected by items 1 and 2.

Decision of STD's WG:							
☐ Characterization as incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR	☐ Characterization: Revision led to full compliance with the latest applicable version of RID/ADR and/or to important safety benefits,						
Reasoning:							

EN 1975:1999	Transportable gas cylinders			
(except Annex 6)	 Specifications for the 			
	design and construction of			
	refillable transportable	6.2.3.1 and	Before 1	[31 December
	seamless aluminium and	6.2.3.4	July 2005	2012]
	aluminium alloy gas			
	cylinders of capacity from			
	0.5 litres up to 150 litres			

Text and assessment by CEN consultant not dispatched.

Conclusion of assessment dated 17.2.1997:

The standard covers all essential requirements of RID/ADR on the subject as outlined in the table at the end of the assessment and there is no contradiction between any part of the standard and these requirements. The comments in the detailed assessment are of an editorial nature

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EN 1975:1999 +	Transportable gas cylinders			
A1:2003	 Specifications for the 			
	design and construction of			
	refillable transportable	6.2.3.1 and	Until further	
	seamless aluminium and	6.2.3.4	notice	
	aluminium alloy gas			
	cylinders of capacity from			
	0.5 litres up to 150 litres.			

Text and assessment by CEN consultant not dispatched.

Conclusion of assessment dated 26.4.2003:

This amendment of EN 1975 is in conformity with ADR/RID.

This amendment has been prepared to replace the existing informative Annex G by a normative annex covering specific requirements for aluminium alloy 2001.

This new annex G can be used by competent authorities who under 6.2.3.2.2 are ready to accept - under conditions - alloy 2001 that has a lower elongation at rupture than specified in 6.2.3.2.1.

Description of revision from EN 1975:1999 (except Annex 6) to EN 1975:1999 + A1:2003 In the 1999 version Annex G allowed cylinders to be manufactured from AA2001 as had been national practice for Belgium, France, Luxembourg and Portugal. A1 introduced a new battery of tests for this alloy into Annex G which was deemed to ensure safety equivalent to that of the other alloys. Therefore the exclusion of Annex G and use of alloy AA2001 was removed from RID/ADR when A1 was referenced.

Summary; the addition of an alloy does not change the type approvals of cylinders granted using the previous version which could not be based on this alloy.

Decision of STD's WG: Characterization as incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR Characterization: Revision led to full compliance with the latest applicable version of RID/ADR and/or to important safety benefits, Reasoning:

Transportable gas cylinders					
The standard covers all essential requirements of RID/ADR on the subject as outlined in the table at the end of the assessment and there is no contradiction between any part of the standard and these requirements. However, the structure of the standard needs to be changed in such a way that the description of the tests are in the normative core of the standard, while the requirements for type testing are in informative annex (see comments on Annex A). EN 13322-1:2003 + A1:2006 - Refillable welded steel gas cylinders − Refillable welded steel gas cylinders − Design and construction − Part 1: Welded steel Text and assessment by CEN consultant dispatched 2005-09, Dispatch 2. Conclusion of CEN consultants assessment dated 12.5.05: EN 13322-1:2003 is referred to in 6.2.2 of ADR/RID. This small amendment (1 page) adds new normative references and modifies some of the requirements for radiographic examination of table B1in order to be in line figure B1. There is no contradiction between the requirements of this amendment and the essential requirements of RID/ADR on the subject. Description of revision from EN 13322-1:2003 to EN 13322-1:2003 + A1:2006 − prEN10130 added to materials list for shells and end pressings. - Table B1 giving radiography requirements rewritten to amend typographical errors and to improve clarity. Previous recommendation to repeat radiographic examination during continuous production after welding machines have been adjusted was changed to a mandatory requirement. Summary; these changes do not invalidate type approvals granted using the previous version. Decision of STD's WG: □ Characterization as incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR and/or to important	EN 13322-1:2003	- Refillable welded steel gas cylinders - Design and construction - Part 1:			-
Text and assessment by CEN consultant dispatched 2005-09, Dispatch 2. Conclusion of CEN consultants assessment dated 18.1.99: The standard covers all essential requirements of RID/ADR on the subject as outlined in the table at the end of the assessment and there is no contradiction between any part of the standard and these requirements. However, the structure of the standard needs to be changed in such a way that the description of the tests are in the normative core of the standard, while the requirements for type testing are in informative annex (see comments on Annex A). EN 13322-1:2003 + A1:2006 - Refillable welded steel gas cylinders − Refillable welded steel gas cylinders − Design and construction − Part 1: Welded steel Text and assessment by CEN consultant dispatched 2005-09, Dispatch 2. Conclusion of CEN consultants assessment dated 12.5.05: EN 13322-1:2003 is referred to in 6.2.2 of ADR/RID. This small amendment (1 page) adds new normative references and modifies some of the requirements for radiographic examination of table B lin order to be in line figure B1. There is no contradiction between the requirements of this amendment and the essential requirements of RID/ADR on the subject. Description of revision from EN 13322-1:2003 to EN 13322-1:2003 + A1:2006 − prEN10130 added to materials list for shells and end pressings. Table B1 giving radiography requirements rewritten to amend typographical errors and to improve clarity. Previous recommendation to repeat radiographic examination during continuous production after welding machines have been adjusted was changed to a mandatory requirement. Summary; these changes do not invalidate type approvals granted using the previous version. Decision of STD's WG: □ Characterization as incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR and/or to important	Text dispatched 2003	3-03, Dispatch 3; Assessment n	ot dispatched.		
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applicable version of RID/ADR version of RID/ADR and/or to important					
	_	• • •	_		* *
	Reasoning:				

Part 2: Welded stainless	EN 13322-2:2003	Transportable gas cylinders - Refillable welded stainless steel gas cylinders - Design and construction - Part 2: Welded stainless steel	6.2.3.1 and 6.2.3.4	Before 1 July 2007	[31 December 2012]
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Text dispatched (2003-03, Dispatch 3); Assessment not dispatched.

Conclusion of CEN consultants assessment dated 27.4.2002:

The standard covers all essential requirements of RID/ADR on the subject as outlined in the table hereafter and there is no contradiction between any part of the standard and these requirements. In this final version, the standard has been restructured in accordance with the format that was agreed for prEN 13293 and is now in full agreement with the CEN rules on conformity assessments.

		I		
EN 13322-2:2003	Transportable gas cylinders			
+ A1:2006	 Refillable welded 			
	stainless steel gas cylinders	6.2.3.1 and	Until further	
	 Design and construction – 	6.2.3.4	notice	
	Part 2: Welded stainless			
	steel			

Text and assessment by CEN consultant dispatched 2006-09, Dispatch 3.

Description of revision from EN 13322-2:2003 to EN 13322-2:2003 + A1:2006 Amendment of

- Title (editorial),
- Table A.1 Requirements for radiographic examination, giving radiography requirements rewritten to amend typographical errors and to improve clarity.

Summary; these changes do not invalidate type approvals granted using the previous version.

Decision of STD's WG:

	Characterization as incremental changes not		Characterization: Revision led to full
	affecting conformity of the type with the latest		compliance with the latest applicable
	applicable version of RID/ADR	version of RID/ADR and/or to impo	
			safety benefits,

Reasoning:

EN 14427:2004	Transportable refillable fully wrapped composite cylinders for liquefied petroleum gases - Design and construction NOTE: This standard applies only to cylinders equipped with pressure relief valves.	6.2.3.1 <u>and</u> 6.2.3.4 and 6.2.3.9	Before 1 July 2007	[31 December 2012]
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Text dispatched 2003-09, Dispatch 1; Assessment by CEN consultant not dispatched. Conclusion of CEN consultants assessment dated 11.8.03:

They are very few essential requirements of RID/ADR specific to the scope of this standard. They are all covered in this standard except the requirement for the measurement of the wall thickness of the finished cylinder. However the standard foresees other tests including a burst test on each batch of finished cylinders. The comments made at the Public Enquiry have all been adequately addressed.

Note: This standard is a carbon copy of EN 12245:2002 except for the drop tests. The requirements for the drop tests are more stringent in this standard than in EN 12245. EN 12245 has been adopted as a reference standard for the 2005 edition of ADR/RID.

EN 14427:2004 + A1:2005	Transportable refillable fully wrapped composite cylinders for liquefied petroleum gases - Design and construction <i>NOTE 1:</i> This standard applies only to cylinders equipped with pressure relief valves. **NOTE 2: In 5.2.9.2.1 and 5.2.9.3.1, both cylinders shall be subject to a burst test when they show damage equal to or worse than the rejection criteria.	6.2.3.1 <u>and</u> 6.2.3.4 and 6.2.3.9	Until further notice	
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Text and assessment by CEN consultant dispatched 2005-09, Dispatch 2 Conclusion of CEN Consultant:

EN 14427:2004 has been accepted as a reference standard in the 2005 editions of ADR/RID. This amendment includes:

- a cross reference where appropriate to prEN 14763 that is at the formal vote stage and has also been submitted for adoption as a reference document to the WG Standards of the JM;
- a modification of the edge impact test and to the drop test to refer to the rejection criteria defined in prEN 14763 and to adapt the secondary tests accordingly.

Remark: I find inconsistent with EN 14763 that in case both test cylinders show damage <u>above</u> the rejection criteria only <u>one</u> cylinder is further submitted to the burst pressure test and not <u>both</u>. The chairman of TC286 WG1has accepted that in a subsequent amendment or revision both cylinders will be further burst tested.

Description of revision from EN 14427:2004 to EN 14427:2004 + A1:2005 Modification of:

- Normative references (add. of prEN 14763 and subsequent amendment of 5.1 and Annex A.1) and
- 5.2.10, Cylinder body integrity and drop test to align with EN 14763.

Decision of STD's WG:

- Characterization as incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR
- Characterization: Revision led to full compliance with the latest applicable version of RID/ADR and/or to important safety benefits,

Reasoning:

EN 14140:2003	Transportable refillable welded steel cylinders for Liquefied Petroleum Gas (LPG) – Alternative design and construction	6.2.3.1 <u>and</u> 6.2.3.4 and 6.2.3.9	Between 1 January 2005 and 31 Decemb er 2010	[31 December 2012]
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Text dispatched 2003-03, Dispatch 3.

Conclusion of CEN consultants assessment dated 22.12.02:

The standard covers all essential requirements of RID/ADR on the subject as outlined in the table hereafter and there is no contradiction between any part of the standard and these requirements. All comments from the previous assessment have been taken care of. In order to be in full compliance with section 6.2.1.5.1 of ADR, a third indent in 9.1.2 shall be added as follows:

"- an inspection of the markings as specified in 10 and Annex A".

EN 14140:2003 +	LPG equipment and			
A1:2006	accessories – Transportable refillable welded steel cylinders for LPG –	6.2.3.1 <u>and</u> 6.2.3.4 and	Until further notice	
	Alternative design and construction	6.2.3.9		

Text and assessment by CEN consultant dispatched 2006-09, Dispatch 1, FV.

Conclusion of CEN Consultant:

EN 14140:2003 has been adopted as a reference document in the 2005 edition of RID/ADR. This amendment is mainly editorial –re-arrangement of some clauses, references to published standards instead, etc.

The only technical change is that the marking requirements of clause 10 have been deleted and replaced with a reference to prEN 14894 LPG cylinder and drum marking. The reference to paragraph 6.2.1.7 should therefore be deleted in the column "Applicable sub-sections and paragraphs" of 6.2.2 when this amendment will be adopted as a reference document.

Description of revision from EN 14140:2003 to EN 14140:2003 + A1:2006 Amendment of

- Title,
- Introduction (reference to EN 14913),
- Normative references (replacement and addition of several standards),
- 4.4 (material certification acc. to EN 10204),
- 5 (design of openings, valve protection, non-pressure containing attachments),
- 6 (welding specification, closure of openings, heat treatment, Table 2, relating tests to type and production testing),
- 7 (Cylinder body integrity impact tests, drop tests),
- 8 (production tests),
- 10 and Annex A (marking).

Decision of STD's WG:

☐ Characterization as incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR

Characterization: Revision led to full compliance with the latest applicable version of RID/ADR and/or to important safety benefits,

Reasoning:

- Cylind Design,	rtable gas cylinders er bundles – manufacture, ation and testing	6.2.3.1 <u>and</u> 6.2.3.4 and 6.2.3.9	Before 1 July 2007	[31 December 2012]
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Text dispatched on 2003-03, Dispatch 3

Conclusion of CEN consultants assessment dated 3.1.03:

Periodic inspection has been removed from the scope of the standard. The standard covers all essential requirements of RID/ADR on the subject as outlined in the table. The standard adds to the limited requirements in ADR/RID, some technical requirements for the design (e.g. vertical load of twice the max.gross weight) and for the testing (e.g. a drop test at 1.2m) of cylinder bundles and their manifolds.

There is no contradiction between any part of the standard and the requirements of RID/ADR.

EN 13769:2003/ A1:2005	Transportable gas cylinders – Cylinder bundles – Design, manufacture, identification and testing	6.2.3.1 <u>and</u> 6.2.3.4 <u>and</u> 6.2.3.9	Until further notice	
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Text dispatched on 2004-09, Dispatch 4.

Conclusion of CEN consultants assessment dated 19.6.04:

EN 13769:2003 has been adopted as a reference document for the 2005 edition of ADR/RID. This amendment clarifies further in 7.2.2.3.5 how the <u>rotating</u> drop test shall be performed. This clarification was necessary to ensure bundles are tested according to harmonized conditions.

Description of revision from EN 13769:2003 to EN 13769:2003/ A1:2005 Amendment of

7.2.2.3.5 Rotating drop

The rotating drop test in clause 7.2.2.3.5 was explained in greater detail by the addition of a diagram. The original version required that "The bundle shall be dropped from a height in a rotating manner so that the top hits the ground first . . .". Since the governing conditions of drop height and impact on the top are met in both versions, the diagram serves to eliminate the variations in height through which the centre of gravity falls. In any event the energy imparted to the frame will be substantial, this amendment standardises the requirement.

Summary; the standardisation of the test is a small safety improvement.

De	Decision of STD's WG:							
	Characterization as incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR		Characterization: Revision led to full compliance with the latest applicable version of RID/ADR and/or to important safety benefits,					
Re	easoning:							

for closures				
EN 849:1996 (except Annex A)	Transportable gas cylinders – Cylinder valves: Specification and type testing	6.2.3.1	Before 1 July 2003	[31 December 2012]
Text and assessment	by CEN consultant not dispate	hed.		
EN 849:1996 + A2:2001	Transportable gas cylinders – Cylinder valves: Specification and type testing	6.2.3.1	Before 1 July 2007	[31 December 2012]
Text and assessment	by CEN consultant not dispate	hed.		
EN ISO 10297:2006	Transportable gas cylinders - Cylinder valves: Specification and type testing	6.2.3.1	Until further notice	

Text dispatched on 2004-09, Dispatch 4.

Conclusion of CEN consultants assessment dated 13.6.04:

The standard is the proposed revision of the standard ISO 10297: 1999 that is referred to in 6.2.5.4 since the 2003 edition of ADR/RID. This revision includes now the same requirements as in EN 849:1996/A2: 2001 that is referred to in the table of 6.2.2 of the ADR/RID.

As such this standard is in conformity with the essential requirements of ADR/RID and when published will make EN 849 obsolete.

Description of revision from EN 849:1996 (except Annex A) to EN 849:1996 + A2:2001

- A1 introduced a valve endurance test in the normative Annex C. These tests establish the
 ability of the valve resist wear. This is desirable, but not linked to any RID/ADR requirement
 for which it is sufficient that the valve does not leak during transport and withstands impact.
 So, A1 does not affect compliance to RID/ADR requirements.
- A2 gave editorial clarifications in the body of the standards which did not change the technical requirements.
- Changes in Annex A, however were technical and increased the impact force on unguarded valves to a level deemed equivalent to that given to caps and guards in the drop test in EN 962:1996.

Summary; these changes do not invalidate type approvals granted using the previous version, since the annex subject to technical change was excluded from the reference.

Decision of STD's WG: Characterization as incremental changes not Characterization: Revision led to full affecting conformity of the type with the latest compliance with the latest applicable applicable version of RID/ADR version of RID/ADR and/or to important safety benefits, Reasoning: Description of revision from EN 849:1996 + A2:2001 to EN ISO 10297:2006 The technical requirements of these two standards are the same. Decision of STD's WG: Characterization as incremental changes not Characterization: Revision led to full affecting conformity of the type with the latest compliance with the latest applicable applicable version of RID/ADR version of RID/ADR and/or to important safety benefits, Reasoning:

of LPG – cylinder valves – Self closing 6.2.3.3 1 January 2005 and 31 Decemb 2012]	Self closing 6.2.3.3 2005 and 20121
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Text dispatched on 2003-03, Dispatch 1

Conclusion of CEN consultants assessment dated 24.12.2000:

The standard satisfies the requirements of ADR/RID on the scope of the standard and the standard does not come into contradiction with other requirements of ADR/RID. The requirements for the impact test in 5.3.8 (former Annex A) reflect the agreement on the subject with the experts of TC23 and of TC286..

Text dispatched on 2003-03, Dispatch 3

Conclusion of CEN consultants assessment dated 4.1.2003:

This first amendment of EN 13152:2001 covers:

a series of editorial corrections in the core of the standard and

revised requirements in Annex C for the test at low temperature for valves to be used under temperatures below -20° C.

The modifications do not contradict any requirements of ADR/RID.

Description of revision from EN 13152:2001 to EN 13152:2001 + A1:2003

The main change was the addition of Annex C - Special low temperature requirements for valves

Decision of STD's WG:

☐ Characterization as incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR

Characterization: Revision led to full compliance with the latest applicable version of RID/ADR and/or to important safety benefits,

Reasoning:

EN 13153:2001 Specifications and testing of LPG – cylinder valves – Manually operated	6.2.3.3	Between 1 January 2005 and 31 Decemb er 2010	[31 December 2012]
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Text dispatched on 2003-03, Dispatch 1.

Conclusion of CEN consultants assessment dated 24.12.2000:

The standard satisfies the requirements of ADR/RID on the scope of the standard and the standard does not come into contradiction with other requirements of ADR/RID. The requirements for the impact test in 5.3.7 (former Annex A) reflect the agreement on the subject with the experts of TC23 and of TC286.

EN 13153:2001 + A1:2003	Specifications and testing of LPG – cylinder valves – Manually operated	6.2.3.3	Until further notice	
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Text dispatched on 2003-03, Dispatch 3.

Conclusion of CEN consultants assessment dated 4.1.2003.

This first amendment of EN 13153:2001 covers:

- a series of editorial corrections in the core of the standard and
- revised requirements in Annex D for the test at low temperature for valves to be used under temperatures below -20°C.

The modifications do not contradict any requirements of ADR/RID.

Description of revision from EN 13153:2001 to EN 13153:2001 + A1:2003

The main change was the addition of Annex D - Special low temperature requirements for valves.

Decision of STD's WG:

	Characterization as incremental changes not	Characterization: Revision led to full
	affecting conformity of the type with the latest	compliance with the latest applicable
	applicable version of RID/ADR	version of RID/ADR and/or to important
		safety benefits,
Re	asoning:	

Reference	title of document	Applicable sub-sections and paragraphs	Applicable for new type approvals or for renewals	Latest date for withdrawal of existing type approvals
(1)	(2)	(3)	(4)	(5)
For all tanks				
EN 14025:	Tanks for the transport of	6.8.2.1	Between	
2003 +	dangerous goods – Metallic		1 January 2005	[31 December
AC:2005	pressure tanks – Design and		and	2012]
	construction		30 June 2009	

Text dispatched 2007-09, Dispatch 5

Conclusion of CEN consultants assessment dated 10.2.03

This assessment supersedes the previous assessment dated 3 November 2002. All comments made in the previous assessment have been considered. The following comments – editorial, non-technical, and agreed with the convenor- will be brought in by the CEN editors before publishing.

EN 14025:	Tanks for the transport of	6.8.2.1		
2008	dangerous goods – Metallic		Until further	
	pressure tanks – Design and		notice	
	construction			

Text and assessment by CEN consultant dispatched by CEN on 2008-03, Dispatch 2.

Conclusion of CEN consultants assessment:

prEN 14025 rev is an update of issue 2003, which is already referenced in ADR/RID, 6.8.2.6, claiming to comply with the requirements of chapter 6.8. The revisions made can be characterized as corrections, improvements and an update of references.

The revised standard is supported.

Description of revision from EN 14025:2003 + AC:2005 to EN 14025:2008

Corrections, (also of formulas), improvements and removal of obscurities.

It is assumed that the text of the transition clause in ADR/RID 2009 ("Application authorized for tanks constructed between 1 January 2005 and 30 June 2009") will lead to a deletion of the reference of the old version in ADR/RID 2011.

Decision of STD's WG:

	☐ Characterization as incremental changes not	☐ Characterization: Revision led to full
	affecting conformity of the type with the latest	compliance with the latest applicable
	applicable version of RID/ADR	version of RID/ADR and/or to important
	**	safety benefits,
1	Reasoning:	
	· ·	

For tanks with a maximum working pressure not exceeding 50 kPa and intended for the carriage of substances for which a tank code with the letter "G" is given in column (12) of Table A of Chapter 3.2

EN 13094:	Tanks for the transport of	6.8.2.1	Between	
2004	dangerous goods – Metallic tanks		1 January 2005	[31 December
	with a working pressure not		and	-
	exceeding 0.5 bar – Design and		31 December	2012]
	construction		2009	

Text dispatched 2007-09, Dispatch 5

Conclusion of CEN consultants assessment dated 22.6.03

Comments made in previous assessments have been adequately addressed and all essential requirements of RID/ADR with regard to construction and manufacture are covered except for the few minor comments noted in 2.

It shall be brought to the attention of the Joint Meeting ADR/RID that the design approval methods foreseen in this standard includes "dynamic testing" and "positive experience with existing reference design". The latter method is conditional that the variations in design between the reference design and the subject design are within the limits of EN 12972:2001. The concept of variations under the same approval was introduced in the 2001 version of ADR/RID when the reference to EN12972 was proposed.

EN 13094:	Tanks for the transport of	6.8.2.1		
2008	dangerous goods – Metallic tanks with a working pressure not exceeding 0.5 bar – Design and construction		Until further notice	

Text and assessment by CEN consultant dispatched by CEN on 2008-03, Dispatch 2.

Conclusion of CEN consultants assessment:

prEN 13094 rev is an update of issue 2004, which is already referenced in ADR/RID, 6.8.2.6, claiming to comply with the requirements of chapter 6.8 and declared applicable to sub-section 6.8.2.1 of ADR/RID. The revisions made can be characterized as corrections, improvements and an update of references.

The revised standard is supported.

Editorial deficiencies were detected and proposals drafted for improvement.

Description of revision from EN 13094:2004 to EN 13094:2008

Correction of inconsistencies and clarification of some provisions to avoid misinterpretation. The provisions about the upper protection were amended.

It is assumed that the text of the transition clause in ADR/RID 2009 ("Application authorized for tanks constructed between 1 January 2005 and 30 June 2009") will lead to a deletion of the reference of the old version in ADR/RID 2011.

Decision of STD's WG:

	Characterization as incremental changes not	Characterization: Revision led to full
	affecting conformity of the type with the latest	compliance with the latest applicable version
	applicable version of RID/ADR	of RID/ADR and/or to important safety
		benefits,
Re	easoning:	

for tanks for	for tanks for gases of Class 2					
EN 12493:	Welded steel tanks for liquefied	6.8.2.1(with				
2001 (except	petroleum gas (LPG) – Road	the				
Annex C)	tankers – Design and	exception of				
	manufacture	6.8.2.1.17);				
	Note: Road tankers is to be	6.8.2.4.1	Between			
	understood in the meaning of	(with the	1 January 2005	[31 December		
	"fixed tanks" and "demountable	exclusion of	and	2012]		
	tanks" as per ADR.	the	31 December	2012]		
		leakproofne	2010			
		ss test);				
		6.8.2.5.1,				
		6.8.3.1 and				
		6.8.3.5.1				

Text dispatched on 2003-03, Dispatch 1.

Conclusion of CEN consultants assessment dated 10.5.00:

The standard covers all essential requirements of RID/ADR on the subject as outlined in the table at the end of the assessment. Nevertheless, it differs in two areas with the provisions of ADR:

- 1. The standard utilises other criteria than in ADR for the calculation of the minimum wall thickness. The thickness values determined are however within acceptable tolerances identical to those determined using the ADR criteria.
- 2. The determination of the minimum wall thickness for impact is based on a linear formula proportional to the diameter of the shell and not on the two fixed values of the ADR. In practice, LPG tankers are built for the highest test pressure of the different grades of LPG and the resulting minimum wall thickness for pressure exceeds the minimum wall thickness for impact.

100011111111111111111111111111111111111	minimum wan undimess for pressure	CHICCOUS CHIC HIS	***************************************	ess for mapace.
EN 12493:	LPG equipment and accessories -	1.2.1, 6.8.1		
2008 (except	Welded steel tanks for liquefied	6.8.2.1		
Annex C)	petroleum gas (LPG) – Road	(with the		
	tankers – Design and	exception of		
	manufacture	6.8.2.1.17),	Until further	
	Note: Road tankers is to be	6.8.2.5,	notice	
	understood in the meaning of	6.8.3.1,		
	"fixed tanks" and "demountable	6.8.3.5,		
	tanks" as per ADR.	6.8.5.1 to		
		6.8.5.3		

Text and assessment by CEN consultant dispatched on 2007-09, Dispatch 3.

Conclusion of CEN consultants assessment dated 28.5.07:

The revision has lead to an update of reference standards, particularly relating to the qualification of welding, in text and clause 2, a revision of symbols and presentation of D 3.2.5 to align with EN 13445 (source standard) and editorial changes.

The updated normative references, now describe the actual state of the art of quality requirements and procedures on welding, non-destructive testing, material qualification and testing, design rules and equipment requirements.

The design of torispherical tank ends has been adapted to EN 13445-3 (Unfired pressure vessels – design).

This opportunity has been used to align the text further with the ADR in order to allow for the removal of restrictions in the ADR reference text. This concerns the calculation of the minimum wall thickness in section 4.2 and Annex A of the standard.

Other non-compliances with ADR have been kept. This is expected to lead to continued restrictions in the reference text. For some of the non-compliances, the suggested amendments under 3.2 could be followed, as an alternative.

Some editorial amendments are additionally suggested under 3.3.

Notwithstanding the editorial amendments suggested under 3.3 and 3.4, the revised version of the standard can be approved.

Description of revision from EN 12493:2001 (except Annex C) to EN 12493:2008 (except Annex C) Main changes from 2001 version:

- update of reference standards, particularly relating to qualification of welding, in text and Clause
 2;
- restriction to maximum UTS added to 4.2 and Annex A to align with ADR restrictions;
- revision of symbols and presentation of D.3.2.5 to align with EN 13445 (source standard). No technical
- changes to end design result;
- editorial changes.

Decision of STD's WG:

Characterization as incremental changes not	Characterization: Revision led to full
affecting conformity of the type with the	compliance with the latest applicable version
latest applicable version of RID/ADR	of RID/ADR and/or to important safety
	benefits,

Reasoning:

EN 12252:	Equipping of LPG road	6.8.3.2		
2000	tankers	(with the	Between	
	Note: Road tankers is to be	exception of	1 January 2005	[21 Dagamhan
	understood in the meaning	6.8.3.2.3)	and	[31 December 2012]
	of "fixed tanks" and		31 December	2012]
	"demountable tanks" as per		2010	
	ADR.			
7D 11 1	1 0007 00 D: . 1 0			

Text dispatched on 2007-09, Dispatch 3.

Conclusion of CEN consultants assessment dated 28.5.07, see above.

EN	LPG equipment and	6.8.3.2		
12252:2005	accessories – Equipping of	(with the		
+ A1:2008	LPG road tankers	exception of		
	Note: Road tankers is to be	6.8.3.2.3)	Until further	
	understood in the meaning	and	notice	
	of "fixed tanks" and	6.8.3.4.9		
	"demountable tanks" as per			
	ADR.			

Text and assessment by CEN consultant dispatched on 2007-09, Dispatch 4.

Conclusion of CEN consultants assessment dated 29.6.07:

The Standards Working Group identified essentially three issues:

- the wording of the leakproofness test in case that the tank is in gas service;
- the definition of the set pressure for the pressure valve;
- calculation examples given for discharge capacities of pressure valves.

Whereas the first issue has been dealt with using wording suggested by the STDs WG, the two others have been resolved by deleting the text.

This is seen as adequate, see reasoning below.

An additional amendment deletes some specifications of discharge hoses which are not specifically addressed in the ADR.

The missing reference to the ADR was added to the Bibliography as 5th clause.

Description of revision from EN 12252:2000 to EN 12252:2005 + A1:2008

Update of the referenced standards. Plus changes to requirements to hose, leak testing and PRV's to align with the requirements of the ADR

Decision of STD's WG:

	Characterization as incremental changes not	Characterization: Revision led to full
	affecting conformity of the type with the	compliance with the latest applicable version
	latest applicable version of RID/ADR	of RID/ADR and/or to important safety
		benefits,
Re	asoning:	

EN 13530-2: 2002	Cryogenic vessels – Large transportable vacuum insulated vessels – Part 2: Design, fabrication, inspection and testing	6.8.2.1 (with the exception of 6.8.2.1.17), 6.8.2.4, 6.8.3.1 and 6.8.3.4	Between 1 January 2005 and 30 June 2007	[31 December 2012]
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Text dispatched by CEN on 2003-03, Dispatch 1.

Conclusion of CEN consultants assessment dated 19.1.01:

The remarks and suggestions made during the previous assessment have been included in the revised pages issued by the Secretary of TC268 as attachment to this assessment. The standard satisfies the requirements of the ADR provided that the modified pages (see attachment) are incorporated in the final version of the document.

EN 13530-2: 2002 + A1:2004	Cryogenic vessels – Large transportable vacuum insulated vessels – Part 2: Design, fabrication, inspection and testing	6.8.2.1 (with the exception of 6.8.2.1.17), 6.8.2.4, 6.8.3.1 and 6.8.3.4	Until further notice	
		6.8.3.4	ļ ,	!

Text and assessment by CEN consultant dispatched by CEN on 2005-03, dispatch 1.

Conclusion of CEN consultants assessment dated 27.12.04:

This amendment covers technical design requirements that are not affected by ADR/RID requirements; i.e. the design of the stiffening rings and the design of cylindrical shell for external pressure.

Description of revision from EN 13530-2:2002 to EN 13530-2:2002 + A1:2004 Only clause 4.3.6.2.6 - stiffening ring - has been modified.

Decision of STD's WG:

☐ Characterization as incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR

☐ Characterization: Revision led to full compliance with the latest applicable version of RID/ADR and/or to important safety benefits,

Reasoning:

For tanks intended for the carriage of liquid petroleum products and other dangerous substances of Class 3 which have a vapour pressure not exceeding 110 kPa at 50 °C and petrol, and which have no toxic or corrosive subsidiary hazard

EN 13094:	Tanks for the transport of	6.8.2.1	Between	
2004	dangerous goods – Metallic tanks		1 January 2005	[31 December
	with a working pressure not		and	-
	exceeding 0.5 bar – Design and		31 December	2012]
	construction		2009	

Text dispatched 2007-09, Dispatch 5

Conclusion of CEN consultants assessment dated 22.6.03

Comments made in previous assessments have been adequately addressed and all essential requirements of RID/ADR with regard to construction and manufacture are covered except for the few minor comments noted in 2.

It shall be brought to the attention of the Joint Meeting ADR/RID that the design approval methods foreseen in this standard includes "dynamic testing" and "positive experience with existing reference design". The latter method is conditional that the variations in design between the reference design and the subject design are within the limits of EN 12972:2001. The concept of variations under the same approval was introduced in the 2001 version of ADR/RID when the reference to EN12972 was proposed.

EN 13094:	Tanks for the transport of	6.8.2.1		
2008	dangerous goods – Metallic tanks with a working pressure not exceeding 0.5 bar – Design and construction		Until further notice	

Text and assessment by CEN consultant dispatched by CEN on 2008-03, Dispatch 2. Conclusion of CEN consultants assessment:

prEN 13094 rev is an update of issue 2004, which is already referenced in ADR/RID, 6.8.2.6, claiming to comply with the requirements of chapter 6.8 and declared applicable to sub-section 6.8.2.1 of ADR/RID. The revisions made can be characterized as corrections, improvements and an update of references.

The revised standard is supported.

Editorial deficiencies were detected and proposals drafted for improvement.

Description of revision from EN 13094:2004 to EN 13094:2008

Correction of inconsistencies and clarification of some provisions to avoid misinterpretation. The provisions about the upper protection were amended.

It is assumed that the text of the transition clause in ADR/RID 2009 ("Application authorized for tanks constructed between 1 January 2005 and 30 June 2009") will lead to a deletion of the reference of the old version in ADR/RID 2011

Decision of STD's WG: □ Characterization as incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR □ Characterization: Revision led to full compliance with the latest applicable version of RID/ADR and/or to important safety benefits, Reasoning:

EN	Tanks for transport of	6.8.2.2 and	Between	
13317:2002	dangerous goods – Service	6.8.2.4.1	1 January 2005	[31 December
	equipment for tanks – Manhole		and 30 June	2012]
	cover assembly		2007	

Text dispatched by CEN on 2003-3, Dispatch 2

Conclusion of CEN consultants assessment dated 12 Feb. 2002:

All essential requirements of RID/ADR on the subject as outlined in the table hereafter are covered in the standard and there is no contradiction between any part of the standards and these requirements.

(except for the figure and table B.2 in Annex B) (The material shall meet the requirements of standard EN 13094:200	dangerous goods – Service equipment for tanks – Manhole cover assembly	6.8.2.4.1	Between 1 January 2007 and 31 December 2010	[31 December 2012]
4, Clause 5.2)	ent by CEN consultant as above			

Text and assessment by CEN consultant as above

Description of revision from EN 13317:2002 to EN 13317:2002 (except for the figure and table B.2 in Annex B)

EN 13317 was modified to take into account what was included in the RID/ADR 2007 (the deletion of figure and table B.2 and a requirement for the material).

A deletion of the reference to EN 13317:2002 would be possible in view of ADR 1.6.3.32 which limits manufacture till 31.12.2006.

Decision of STD's WG:

- ☐ Characterization as incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR
- ☐ Characterization: Revision led to full compliance with the latest applicable version of RID/ADR and/or to important safety benefits.

Reasoning:

Tanks for transport of dangerous goods – Service equipment for tanks – Mar cover assembly		Until further notice	
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Text and assessment by CEN consultant dispatched by CEN on 2006-9, Dispatch 1 FV Conclusion of CEN consultants assessment dated 11 March 2006:

EN 13317:2002 was introduced in the 2005 edition of the ADR as a reference standard. This amendment follows a decision of the Joint Meeting in September 2005 to amend the reference to the standard in order to:

- request that the materials of the manhole meet the requirements for the materials of the shell itself according to EN 13094:2004;
- forbid the use of the "clampband assembly" described in Figure B2. The Technical Committee TC296 has decided to go further and removed also the reference to the "J bolt assembly" in Figure B3.

Description of revision from EN 13317:2002 (except for the figure and table B.2 in Annex B) to EN 13317:2002 + A1:2006

It is assumed that the text of the transition clause in ADR/RID 2009 ("Application authorized for tanks constructed between 1 January 2007 and 31 December 2008") will lead to a deletion of the reference of the old version in ADR/RID 2011

Decision of STD's WG:

- ☐ Characterization as incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR
- Characterization: Revision led to full compliance with the latest applicable version of RID/ADR and/or to important safety benefits,

Reasoning: