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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</u> <u>regulations for type approvals</u>

#### Transmitted by the European Committee for Standardisation (CEN)<sup>1, 2</sup>

#### 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).

<sup>&</sup>lt;sup>1</sup> 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)).

<sup>&</sup>lt;sup>2</sup> 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the ECMA request transitional provisions will be necessary if standards mentioned in type approval certificates are superseded in the RID/ADR, to allow the continued use of such type approvals until they can be updated to reference the equivalent current standard.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consider the addition of text to 1.8.7.2 and to discuss the possible transition measures to permit the extended use of superseded standards in these type approvals.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 paragraphs	Applicable for new type approvals or for renewals	Latest date for withdrawal of existing type approvals	
for design and constr	uction				
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.					

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]	
	4-09, Dispatch 3; Assessment b				
	on from EN 1442:1998+AC:19 ated the standard to align with t				
ADR/RID.	ated the standard to angle with t	ine requirement	s for cynnicer n		
	ssment dated 25.11.2005:				
	a revision of EN 1442:1998 tha	t is already refe	erred to in 6.2.2	of ADR/RID.	
The standard inc	ludes the amendment A1 and A	2 also adopted	as reference do	cuments by the	
Joint Meeting.					
	rements are the same as in the		cept for the fol	lowing:	
	not limited to EN 10120 in 4.1; ed table for the bend test to cov		th high Dm		
	ium burst pressure is 35 bar ins		ui iligii Kili		
	1. > 6 L and burst pressure $> 100$		nical tests in pr	oduction may	
be replaced with	1	,	1	5	
*	ents are in conformity with the	provisions of A	DR		
Decision of STD's W					
	as incremental changes not		zation: Revisio		
	nity of the type with the latest	1	e with the latest	11	
applicable versio	n of RID/ADK	safety bene		or to important	
Reasoning:		Safety bein			
reasoning.					
EN 1442:2006 +	Transportable refillable				
A1:2008	welded steel cylinders for	6.2.3.1 and	Until further		
	liquefied petroleum gas	6.2.3.4	notice		
	(LPG) - Design and				
construction       Text and assessment of CEN consultant dispatched 2007-09, Dispatch 3.					
Text and assessment of CEN consultant dispatched 2007-09, Dispatch 5.					

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 П 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:

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]
Taxt and according	by CEN consultant not dispate	had		

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 -		Until further			
	- Acetylene cylinders - Basic requirements,	6.2.1.1.9	notice			
	definitions and type testing		notice			
Text and assessmer	t by CEN consultant dispatched	2006-09	Dispatch 2 FV			
	sment dated 22.4.06:	2000 09,				
	year revision/confirmation of a	ll EN stand	dards, this standard i	s a revision of		
	that was introduced - with its co					
2001 edition of		0				
The revision ad	ds a new sub-clause about joggl	e welds in	4.2.1 and updates th	e reference to		
other standards	published in the meantime and	brings a fe	w editorial changes.			
The standard co	overs all essential requirements of	of RID/AE	R on the subject as	outlined in the		
table at the end	of the assessment. There is no c	ontradictio	on between any part	of the standard		
and these requir	ements.					
1	ion from EN 1800:1998/AC:199	99 to EN 1	800:2006			
	new safety requirements are:					
	s use butt or joggle joints only (					
	all be verified as free of porous i	material vo	olds and movement v	which might		
	orous material (4.2.4)					
3. extending an ap $(5.4.3 \text{ b})$ .	proval to include bigger sizes re	quires a n	ew set of elevated te	mperature tests		
	ses will give safety improvemen					
these are sufficient	y significant to necessititate wit	hdrawal o	f existing type appro	vals. Seamless		
cylinders are unaffe	ected by items 1 and 2.					
Decision of STD's	WG:	-				
	n as incremental changes not		acterization: Revisio			
0	mity of the type with the latest	1	liance with the lates	11		
applicable versi	on of RID/ADR		on of RID/ADR and	/or to important		
safety benefits,						
Reasoning:						

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

EN 13322-1:2003	Transportable gas cylinders – Refillable welded steel gas cylinders – Design and construction – Part 1: Welded steel	6.2.3.1 and 6.2.3.4	Before 1 July 2007	[31 December 2012]	
Text dispatched 2003	3-03, Dispatch 3; Assessment n	ot dispatched.			
	consultants assessment dated 18				
The standard cov	vers all essential requirements o	of RID/ADR on	the subject as c	outlined in the	
table at the end o	of the assessment and there is no	o contradiction	between any pa	rt of the	
standard and thes	se requirements. However, the s	structure of the	standard needs	to be changed	
in such a way that	at the description of the tests are	e in the normati	ve core of the s	tandard, while	
the requirements	for type testing are in informat	ive annex (see	comments on A	nnex A).	
EN 13322-1:2003 + A1:2006	Transportable gas cylinders – Refillable welded steel gas cylinders – Design and construction – Part 1: Welded steel	6.2.3.1 and 6.2.3.4	Until further notice		
Text and assessment	by CEN consultant dispatched	2005-09 Disna	utch 2		
	consultants assessment dated 12				
	3 is referred to in 6.2.2 of ADR		ll amendment (	1 nage) adds	
	eferences and modifies some of				
	able B1in order to be in line fig				
	adiction between the requireme		ndment and the	essential	
	RID/ADR on the subject.				
	on from EN 13322-1:2003 to E	N 13322-1:200	3 + A1:2006		
-	d to materials list for shells and				
-	radiography requirements rewr	· ·		rrors and to	
	Previous recommendation to re				
	uction after welding machines h				
mandatory requir	rement.	2	-		
Summary; these chan	nges do not invalidate type appr	rovals granted u	ising the previo	us version.	
Decision of STD's WG:					
□ Characterization	as incremental changes not	🗆 Characteri	zation: Revisio	n led to full	
0	nity of the type with the latest	-	e with the latest	11	
applicable version of RID/ADR version of RID/ADR and/or to important safety benefits,					
Reasoning:					

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]		
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 asses EN 13322-2:2003	sments. Transportable gas cylinders	-				
+ A1:2006	<ul> <li>Refillable welded</li> <li>stainless steel gas cylinders</li> <li>Design and construction –</li> <li>Part 2: Welded stainless</li> <li>steel</li> </ul>	6.2.3.1 and 6.2.3.4	Until further notice			
	by CEN consultant dispatched					
<ul> <li>Description of revision from EN 13322-2:2003 to EN 13322-2:2003 + A1:2006</li> <li>Amendment of <ul> <li>Title (editorial),</li> <li>Table A.1 – Requirements for radiographic examination, giving radiography requirements rewritten to amend typographical errors and to improve clarity.</li> </ul> </li> <li>Summary; these changes do not invalidate type approvals granted using the previous version.</li> </ul>						
Decision of STD's V	WG:	-				
affecting conformity of the type with the latest compliance						
Reasoning:						
EN 14427:2004	Transportable refillable fully wrapped composite					

EN 14427:2004Transportable refillable fully wrapped composite cylinders for liquefied petroleum gases - Design and construction6.2.3.1 and 6.2.3.4 and 6.2.3.9Before 1 July 2007[3][3][3][4][4][4][5][5][6][7][7][8][9][9][9][9][10][10][11][12][13][14][15][16][16][16][17][18][18][19][19][10][10][10][10][11][12][13][13][13][14][15][16][16][16][17][18][18][19][19][19][11][11][11][12][13][13][14][15][16][16][16][16][17][18][18][19][19][19][19][19][19][19][19][19][19][19][11][11][11][11][11][1	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. <i>NOTE 2:</i> 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 <del>and</del> 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 1	4763.				
Decision of STD's V		-					
Characterization	as incremental changes not	🗆 Characteri	zation: Revisio	n led to full			
-	nity of the type with the latest	-	e with the latest				
applicable version	on of RID/ADR			or to important			
		safety bene	efits,				
Reasoning:							
EN 14140:2003	Transportable refillable		Between				
1111110.2003	welded steel cylinders for	6.2.3.1 and	1 January				
	Liquefied Petroleum Gas	6.2.3.4 <u>and</u>	2005 and	[31 December			
	(LPG) – Alternative design	$\frac{6.2.3.9}{6.2.3.9}$	31 Decemb	2012]			
	and construction	0.2.3.7	er 2010				
Text dispatched 200			01 2010				
	consultants assessment dated 22	2 12 02·					
	vers all essential requirements of		the subject as c	utlined in the			
	nd there is no contradiction betw						
	l comments from the previous	• •					
	full compliance with section 6.						
be added as follo		2.1.0.1 0111010					
	of the markings as specified in	10 and Annex A	`"				
EN 14140:2003 +	LPG equipment and		_ •				
A1:2006	accessories – Transportable						
	refillable welded steel	6.2.3.1 <u>and</u>	Until further				
	cylinders for LPG –	6.2.3.4 and	notice				
	Alternative design and	<del>6.2.3.9</del>					
	construction						
Text and assessment	by CEN consultant dispatched	2006-09. Dispa	tch 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			-	-			
	al change is that the marking re	equirements of o	lause 10 have l	been deleted			
	h a reference to prEN 14894 LI	1					
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).

De	Decision of STD's WG:							
	affecting conformity of the type with the latest		Characterization: Revision led to full compliance with the latest applicable version of RID/ADR and/or to important					
	applicable version of RID/ADR		safety benefits,					
	•							

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Reasoning:
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EN 13769:2003	Transportable gas cylinders – Cylinder bundles – Design, manufacture, identification and testing	6.2.3.1 <u>and</u> 6.2.3.4 <del>and</del> 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/ A1:2005Transportable gas cylinders – Cylinder bundles – Design, manufacture, identification and testing	6.2.3.1 <u>and</u> 6.2.3.4 <del>and</del> <del>6.2.3.9</del>	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 explain	ned in greater detail by the addition of a				
diagram. The original version required that "The bu	undle shall be dropped from a height in a				
rotating manner so that the top hits the ground first.					
height and impact on the top are met in both version					
variations in height through which the centre of grav					
the frame will be substantial, this amendment standa	1				
Summary; the standardisation of the test is a small s	afety improvement.				
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:					

for closures						
<b>EN 849:1996</b> (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 dispatched.						
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	ched.		_		
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:						

clusion 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:					
Ĩ	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.

Decis	sion of STD's WG:	
	Characterization as incremental changes not	Characterization: Revision led to full
a	ffecting conformity of the type with the latest	compliance with the latest applicable
aj	pplicable version of RID/ADR	version of RID/ADR and/or to important
		safety benefits,

EN 13152:2001	Specifications and testing of LPG – cylinder valves – Self closing	6.2.3.3	Between 1 January 2005 and 31 Decemb er 2010	[31 December 2012]	
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					
EN 13152:2001 + A1:2003	Specifications and testing of LPG – cylinder valves – Self closing	6.2.3.3	Until further notice		

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  $-20^{\circ}$ 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

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]		
Text dispatched on 2	003-03, Dispatch 1.					
Conclusion of CEN	consultants assessment dated 24	4.12.2000:				
standard does no requirements for	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			
Text dispatched on 2	003-03, Dispatch 3.		•	•		
Conclusion of CEN	consultants assessment dated 4.	1.2003.				
	ment 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.						
-	on from EN 13153:2001 to EN					
The main change wa	s the addition of Annex D - Spe	ecial low tempe	rature requirem	ents 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,
Rea	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		<b>r</b>					
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 2	2007-09, Dispatch 5						
Conclusion of CH	EN consultants assessment dated 1	0.2.03					
This assessm	ent supersedes the previous asses	sment dated 3 N	ovember 2002. Al	l comments			
	previous assessment have been could all and agreed with the convenor-						
publishing.	ii, and agreed with the convention-	will be brought i	II by the CEN edito	ors before			
<b>EN 14025:</b>	Tanks for the transport of	6.8.2.1					
2008	dangerous goods – Metallic	0.6.2.1	Until further				
2008			notice				
	pressure tanks – Design and		nouce				
	construction		(0,0,0,0,0)	<u> </u>			
	ent by CEN consultant dispatched	by CEN on 200	08-03, Dispatch 2.				
	EN consultants assessment:	1 • 1 • 1 1					
	rev is an update of issue 2003,						
•	comply with the requirements	1		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.							
	at the text of the transition claus		× 11				
	tanks constructed between 1 January 2005 and 30 June 2009") will lead to a deletion of the reference						
of the old version	n in ADR/RID 2011.						
<b>Decision of STD</b>	'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:

# 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 1	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	2012]	
		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	0.0.2.1	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,

for tanks for gases of Class 2					
		$(0.2.1)^{-1}$			
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	]	
		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:					
	ard covers all essential requirements				
	e end of the assessment. Nevertheles	ss, it differs in t	wo areas with the p	rovisions of	
ADR:					
	andard utilises other criteria than in A				
	The thickness values determined ar	e however withi	in acceptable tolera	nces identical to	
	rmined using the ADR criteria.				
	termination of the minimum wall th				
	hal to the diameter of the shell and n				
	ers are built for the highest test press				
	ninimum wall thickness for pressure		inimum wall thickn	ess for impact.	
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,

EN 12252: 2000	Equipping of LPG road tankers Note: Road tankers is to be understood in the meaning of "fixed tanks" and "demountable tanks" as per ADR.	6.8.3.2 (with the exception of 6.8.3.2.3)	Between 1 January 2005 and 31 December 2010	[31 December 2012]		
1	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 as	sessment by CEN consultant dis	spatched on 200	07-09, Dispatch 4.			
Conclusion	of CEN consultants assessment	dated 29.6.07:				
The Standards Working Group identified essentially three issues:						
<ul> <li>the wording of the leakproofness test in case that the tank is in gas service;</li> </ul>						
<ul> <li>the definition of the set pressure for the pressure valve;</li> </ul>						
<ul> <li>calculation examples given for discharge capacities of pressure valves.</li> </ul>						
Whereas the first issue has been dealt with using wording suggested by the STDs WG, the two						
	have been resolved by deleting t					
	seen as adequate, see reasoning					
	itional amendment deletes some	e specifications	of discharge hoses	which are not		
	ally addressed in the ADR.	11.1.4.1.0	:1.1: 1	1		
	ssing reference to the ADR was			lause.		
	of revision from EN 12252:200					
1	he referenced standards. Plus ch	anges to requir	ements to nose, leal	k testing and PRV's to		
	he requirements of the ADR					
	STD's WG:			•••••••••••••••••••••••••••••••••••••••		
	erization as incremental change	~	aracterization: Rev			
<b>C F F</b>			-	itest applicable version		
latest applicable version of RID/ADR of RID/ADR and/or to important safety benefits,				s important safety		
		UCI	ients,			

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		
	sment by CEN consultant dispat		n 2005-03, dispatch	1.	
This amen requireme pressure.	Conclusion of CEN consultants assessment dated 27.12.04: This amendment covers technical design requirements <u>that are not affected by ADR/RID</u> <u>requirements</u> ; i.e: the design of the stiffening rings and the design of cylindrical shell for external pressure.				
1	revision from EN 13530-2:2002		:2002 + A1:2004		
Decision of ST	3.6.2.6 - stiffening ring - has bee 'D's WG:	in mourned.			
<ul> <li>□ Characterization as incremental changes not affecting conformity of the type with the latest applicable version of RID/ADR</li> <li>□ Characterization: Revision led to full compliance with the latest applicable version of RID/ADR</li> <li>□ Characterization: Revision led to full compliance with the latest applicable version of RID/ADR</li> </ul>					
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 with a working pressure not exceeding 0.5 bar – Design and		1 January 2005 and 31 December	[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.

	1 1			
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 cha	nges not $\Box$ C	Characterization: Revision led to full
affecting conformity of the type wi	h the co	ompliance with the latest applicable version
latest applicable version of RID/AI	OR of	f RID/ADR and/or to important safety
	be	enefits,

EN 13317:2002	Tanks for transport of dangerous goods – Service equipment for tanks – Manhole cover assembly	6.8.2.2 and 6.8.2.4.1	Between 1 January 2005 and 30 June 2007	[31 December 2012]	
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.					
EN 13317:2002 (except for the figure and table B.2 in Annex B) (The material shall meet the requirements of standard EN 13094:200 4, Clause 5.2)	Tanks for transport of dangerous goods – Service equipment for tanks – Manhole cover assembly	6.8.2.2 and 6.8.2.4.1	Between 1 January 2007 and 31 December 2010	[31 December 2012]	
Text and assessn	nent 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)				- /	
	nodified to take into account what		the RID/ADR 200	7 (the deletion	
0	ble B.2 and a requirement for the n	/		2 2 2 1 1	
	e reference to EN 13317:2002 wou	ld be possible ii	n view of ADR 1.6.	3.32 which	
	ure till 31.12.2006.				
Decision of STI		<u> </u>	·	1 ( 0.11	
	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:					
Reasoning.					
EN	Tanks for transport of	6.8.2.2 and			
13317:2002 +	dangerous goods – Service	6.8.2.4.1	Until further		
A1:2006	equipment for tanks – Manhole	0.0.2.1.1	notice		
	cover assembly				
Text and assess	ment by CEN consultant dispatched	d by CEN on 20	06-9, Dispatch 1 F	V	
	EN consultants assessment dated				
EN 13317:2	2002 was introduced in the 2005 ed	ition of the AD	R as a reference star	ndard. This	
amendment	follows a decision of the Joint Me	eting in Septem	ber 2005 to amend	the reference to	
the standard	in order to:				
– reques	t that the materials of the manhole	meet the require	ements for the mate	rials of the shell	
itself a	ccording to EN 13094:2004;				
– forbid	the use of the "clampband assembl	ly" described in	Figure B2. The Tee	chnical	
Comm	ittee TC296 has decided to go furt	her and removed	d also the reference	to the "J bolt	
assemt	oly" in Figure B3.				
	evision from EN 13317:2002 (exce	ept for the figure	e and table B.2 in A	nnex B) to EN	
13317:2002 + 1					
	at the text of the transition clause in		· · · ·		
	ed between 1 January 2007 and 31	December 2008	") will lead to a del	etion of the	
	old version in ADR/RID 2011				
Decision of STI					
	ation as incremental changes not		zation: Revision led		
•	nformity of the type with the	1	e with the latest app		
latest applicable version of RID/ADR of RID/ADR and/or to important safety benefits,					
Reasoning:					