GAS CYLINDERS AND VALVES WITH RESTRICTED USE IN THE EU

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Table of Contents

Amendments from 86/16

Section	Change
Doc	This Doc was reaffirmed without any changes

1 Introduction

On July 1st, 2001 Directive 1999/36/EC of the European Union on Transportable Pressure Equipment, known as TPED, came into effect. Its intention was to regulate the free movement of transportable pressure equipment, including gas cylinders across the European Union. On June 16th, 2010 Directive 1999/36 was replaced by Directive 2010/35/EU, Transportable Pressure Equipment. This came into force on 1st July 2011, also commonly referred to as TPED and with similar intentions.

The Annex III from Directive 2010/35, defines the procedure for the reassessment of conformity of gas cylinders and valves. Within this Annex is a requirement for any information, where appropriate on, any prescribed restrictions on use to be advised, and if so prevent the application of the pi mark as prescribed in Article 15 of TPED.

Figure 1 Pi mark

The European Agreement Concerning the International Carriage of Dangerous Goods by Road, ADR, references the standards to be used for the periodic inspection and testing of cylinders and valves.

Some countries within the European Union have established lists of specific cylinder types which are not considered safe for the original design conditions and need either to be withdrawn from further service or have limitations placed on their continued use. These lists are frequently referred to as negative cylinder lists.

Because of TPED, it is important that these national lists are known across the European Union. This publication is intended to co-ordinate these lists, avoiding unsuitable cylinders and valves being placed into service in another country to the one where the initial prohibition was raised, and will be updated as appropriate.

2 Scope and purpose

2.1 Scope

The publication covers lists of cylinders and valves with known restrictions on use in European Union Member States. In addition those cylinders and valves which are subject of EIGA Safety Alerts, are included.

This publication does not cover restrictions of a non-technical nature.

2.2 Purpose

The purpose of this publication is to provide a consolidated list of cylinders and valves with restricted use such that it can be used to ensure unsuitable cylinders do not undergo a conformity reassessment.

3 Cylinders

For cylinders with restricted use see lists A.1 to A.5.

4 Valves

For valves with restricted used see list B.1.

5 Recommendations

The recommendations of EIGA are the following:

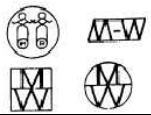
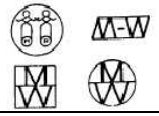
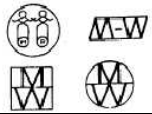
- Where any cylinder or valve is subject of a national restriction, the corresponding requirements shall apply across all countries of operation.

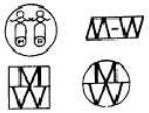
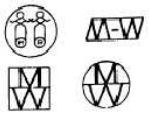
- Specific requirements as stated in the list or in EIGA Safety Alerts are valid across all countries of operation, including those outside of the European Union.

A.1 Germany Negative Cylinder list

No	Manufacturer	Initial test date	Serial no.	Material	Water capacity/ Test pressure/ Gas Service	Specific stamp marks	Specific requirements	Reasons/ Comments	References
1	Rheinische Röhrenwerke AG and Wittkowitzer Bergbau	1936 to 1945		LSC 90	40 l	LSC 90 	no further retests cylinders to be scrapped	a) high strength b) if the marking of the material is not visible, etching is allowed	Dr.Mietentz TÜV Rheinland e.V.3.4.52
2	Rheinische Röhrenwerke AG and Wittkowitzer Bergbau	1936 to 1945		LSC 90 V	40 l	LSC 90 V 			
3	Rheinische Röhrenwerke AG and Wittkowitzer Bergbau	1936 to 1945		not clearly visible	40 l				
4	Rheinische Röhrenwerke AG and Wittkowitzer Bergbau			LS 1		LS 1 	to be scrapped, if C-Mn and Cr-Ni-Mo content cannot be verified TRG 202 RE 1744/I dated 10.3.76	susceptibility to embrittlement, no sufficient toughness behaviour	DG 544 from August 1975 according to RE 1744 dated 13.6.75 TRG 202/9.77 RE 1744/I dated 10.3.76
5	Thyssen Röhrenwerke AG Dinslak and Phoenix, Rheinische (now Mannesmann Röhrenwerke AG)	1936 to 1945 1953 to 1954 also 1966 have to be checked (IGV)		LSCD 9 V LSC 9	50 l	LSCD 9 V LSC 9 	to be scrapped		(related to 1966) failure at hydrotest in South Africa

A.1 Germany Negative Cylinder list

No	Manufacturer	Initial test date	Serial no.	Material	Water capacity/ Test pressure/ Gas Service	Specific stamp marks	Specific requirements	Reasons/ Comments	References
6	Mannesmann Röhrenwerke AG	up to 1945		LSW 90 A + H HV		LSW 90 A + H HV 	To be scrapped		
7	Mannesmann Werk Kommotau	up to 1931				M-W with approval Mark C.V. 	Cylinders shall not be retested any further and shall be scrapped (mostly O2 cylinders)	a) high strength b) brittle cracking behaviour	Common Amtsblatt Baden-Württemberg 1981 no. 20 S 585
8	Rheinische Röhrenwerke AG and Wittkowitzer Bergbau	1936 to 1945		LSE 86 LSE 86 V		LSE 86 LSE 86 V 	To be scrapped	a) these cylinders are susceptible to hardness cracks and stress corrosion cracking b) at positive test results all cylinders shall be stamped with expert mark and date	DGA 717/55 dated 7.11.1955, TRG 202/9.77
9	Mannesmann Röhrenwerke AG Vorlage VdTÜV Bl. 233	1936 to 1945		LSW 90 B LSW 90 BV	40/50 l	LSW 90 B LSW 90 BV 	To be scrapped		DG 544 from August1975, according to RE 1744 dated 13.6.1975 TRG 202/9.77
10	Mannesmann Röhrenwerke AG Vorlage VdTÜV Bl. 233	1936 to 1945		LSW 90 C DE LSW 90 CV	40/50 l	LSW 90 C DE LSW 90 CV 	To be scrapped		

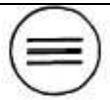
A.1 Germany Negative Cylinder list									
No	**Manufacturer**	**Initial test date**	**Serial no.**	**Material**	**Water capacity/ Test pressure/ Gas Service**	**Specific stamp marks**	**Specific requirements**	**Reasons/ Comments**	**References**
11	Mannesmann Röhrenwerke AG	1952 to 1955		LSW 90 K LSW 90 KV	40/50 l	LSW 90 K LSW 90 KV 	To be scrapped		
12	Mannesmann Röhrenwerke AG			LSC 8 LS Mn LS V	Less than 40l	LSC 8 LS Mn LS V 	To be scrapped	cylinder failures	ABAO 861/1 (DDR) from 1971
13	IWKA			V 70 Mn V 70 VM V 80 VM V 79 VM	0,47 l 0,67l 2,01l 2,68l 5,36l 6,7l 8,04l 10,72l 13,4l	V 70 Mn V 70 VM V 80 VM V 79 VM 	All CO2 cylinders shall be thoroughly checked for corrosion and longitudinal cracks prior to the water filling. If longitudinal cracks are present, the cylinder shall be further internally tested by US-testing. Retest period acc. to ADR should be reconsidered depending to the test results.	These cylinders are susceptible to stress cracking corrosion in the presence of moisture in CO2 (80 % with 8,04 l and test pressure of 190 bar)	RE 1059 dated 9.11.1965 RE 5709 dated 11.4.1972 DGA 18-77 TRG 101 Anlage 2

A.1 Germany Negative Cylinder list									
No	**Manufacturer**	**Initial test date**	**Serial no.**	**Material**	**Water capacity/ Test pressure/ Gas Service**	**Specific stamp marks**	**Specific requirements**	**Reasons/ Comments**	**References**
14	Shanghai Huasheng Enterprises Co. Ltd.		Manufactured January to June 2007	CrMo	All		Before filling Ultrasonic test Hardness test	Leakages at the bottom of two cylinders in Germany	SA 14 June 2008
15	Duro Dakovic	1991 to 2001		Mn steel Stamped with values less than 620	all		Stamped with ≤ 620 To be scrapped	High defect rate which can be difficult to detect visually after shot blasting	
16	SSFR (Rive de Giers)	Produced in July 1989							

A.2 France Negative Cylinder List

No	Manufacturer	Initial test date	Serial no.	Material	Water capacity/ Test pressure/ Gas Service	Specific stamp marks	Specific requirements	Reasons/ Comments	References French "Arrêté"
1	SM GERZAT 	31.03.1977 01.04.1977 05.04.1977 09.05.1977	20470 to 20673 20674 to 20757 20778 to 21287 21391	AA 2001 AA 2001 AA 2001 AA 2001	4/300 bar 4/300 bar 4/300 bar 4/300 bar	AU6 AU6 AU6 AU6	To be scrapped	Sensitive to intercrystalline corrosion	06.01.1989
2	SM GERZAT	From 01.11.1973 to 01.01.79	A 1 to A1800	AA 5283	10,5 l 300 bar	AG5	To be scrapped	Too high cold working	06.01.1989
3	SM GERZAT	Older then 25 years	All	AA 5283	—	AG5 or 5283 or two concentric circles on the bottom	To be scrapped	—	SA 07 Rev 1 March 2007
4	SM GERZAT	before 10.02.75	All	AA 2001 (AU6 MGT)	—	AU6	To be scrapped except those which have been re-heat-treated (see special mark on the base)	Sensitive to intercrystalline corrosion	14/01/1976 + 11/02/1993
5	SM GERZAT with porous mass GIP 2		All	AA 5283	—	GIP 2	Not allowed to be filled since 01.01.97	Sensitive to corrosion cracking	29.12.1995
6	SM GERZAT	Older then 15 years and in marine environments	All	AA 5283	—	AG5 or 5283 or two concentric circles on the bottom	To be scrapped	—	SA 07 Rev 1 March 2007
7	SM GERZAT	In service for scuba diving	All	AA 5283	—	AG5 or 5283 or two concentric circles on the bottom	To be scrapped		SA 07 Rev 1 March 2007

A.2 France Negative Cylinder List									
No	**Manufacturer**	**Initial test date**	**Serial no.**	**Material**	**Water capacity/ Test pressure/ Gas Service**	**Specific stamp marks**	**Specific requirements**	**Reasons/ Comments**	**References French "Arrêté"**
8	SM GERZAT	In service for SCBA application	All	AA 5283	—	AG5 + ARS or APL	To be scrapped		27.01.81

A.3 Finland Negative Cylinder List									
No	**Manufacturer**	**Initial test date**	**Serial no.**	**Material**	**Water capacity/ Test pressure/ Gas Service**	**Specific stamp marks**	**Specific requirements**	**Reasons/ Comments**	**References**
1	IWKA, Homberg	1954 to 1968		V70 MN V70 MN	2 to 14 l		All CO2 cylinders shall be thoroughly checked for corrosion and longitudinal cracks prior to the water filling. If longitudinal cracks are present, the cylinder shall be further internally tested by US-testing. Retest period acc. to ADR should be reconsidered depending to the test results.	these cylinders are susceptible to stress cracking corrosion in the presence of moisture in CO2 (80 % with 8,04 l and test pressure of 190 bar)	
2	Thyssen Röhrenwerke AG	1962	62/874300	to 62/674500	50 l 225 bar		To be scrapped		

A.4 United Kingdom Negative Cylinder List									
No	**Manufacturer**	**Initial test date**	**Serial no.**	**Material**	**Water capacity/ Test pressure/ Gas Service**	**Specific stamp marks**	**Specific Requirements**	**Reasons/ Comments**	**References**
1	NAM Yang, South Korea	Oct 95	NY 08792 to NY 16931	Cr-Mo	10 l CO2/N2	NY	Hardness test on all relevant cylinders. Those cylinders with hardness values above the upper limit shall be scrapped.	Hardness up to 150% above upper limit 8239 cylinders	

A.5 Italy Negative Cylinder List

No	Manufacturer	Initial test date	Serial no.	Material	Water capacity/ Test pressure/ Gas Service	Specific stamp marks	Specific Requirements	Reasons/ Comments	References
1	I.M.Z. S.p.A.	Before Nov 1996	All	Cr-Mo	All gas services except acetylene and natural gas. All water capacities	IMZ	Cylinder with diameters greater than 206 mm shall be scrapped.	Manufacturing defects.	Letter Ministero Delle Infrastrutture e dei trasporti Dated 14 Maggio 2004

A.6 Other Countries Negative Cylinder List									
No	**Manufacturer**	**Initial test date**	**Serial no.**	**Material**	**Water capacity/ Test pressure/ Gas Service**	**Specific stamp marks**	**Specific requirements**	**Reasons/ Comments**	**References**
1	S.C. STINGO SOMET S.A. Buzau, Romania	All	All	AA2024	5l 300bar		Check cylinder before refilling, contact ISCIR competent authority Romania	May be subject to SCC	http://www.iscir.ro/doc/comunicate/stingo.pdf SA 20

B.1 EIGA Negative Valve List							
No	**Manufacturer**	**Production date**	**Serial**	**Working pressure**	**Specific Requirements**	**Reasons/ Comments**	**References**
1	VTI Ventil Technik GmbH	Before August 2005	K44 K46 K900		Medical Oxygen: scrapped Oxidising gases: scrapped before May 2010 Other applications: scrapped at re-test	Seat holder fractured, causing burn-out of the soft seat material (HGi3) in oxygen	EIGA Safety Alert 06 August 2006
2	Messer Cutting and Welding GmbH	1998 -	V13	300 bar	Scrap or use at lower pressure	O-ring not lubricated,	EIGA Safety Alert 10 December 2007
3	Rotarex / Ceodeux S.A.	1999 – 2004	RM 200 light		Replace first generation blanking plugs (new type has 3 stars on the plug) Torque limit to be respected	Pressure retaining brass plug failed	EIGA Safety Alert 11 August 2007
4	Müller Gas Equipment A/S	2002 – 2003 January 2004	511B…..		Inspect the back plug and if necessary replace or use valve protection to absorb ejection or fit a safety cap over the back plug	Back plug ejection due to SCC (excessive torque and water contamination)	EIGA Safety Alert 12 March 2008
5	Rotarex / Ceodeux S.A.	1997 – 2001	RPV 212		Do not fill cylinders with such a valve after Dec 2008 unless one of the following action has been taken: Change to a SS type back plug or Use valve protection to absorb ejection or Fit a safety cap over the back plug	Back plug ejection due to SCC (excessive torque and water contamination)	EIGA Safety Alert 13 March 2008
6	Linde Sürth	1980-1989	GV 20.213, approval no. 85D2	200bar	The internal sealing was done by so called Z-Puffer rubber material. This connection does not fulfil the adiabatic oxygen compression test. In 1989 the O-ring type GV 25.209 with BAZ 08D77 was introduced	Z-puffer material could not fulfil the oxygen surge test. Switch to O-ring type	Linde documents