

Appendix H
Hazardous Materials Group Factual
Youngdo Valve Info

Wilmer, TX
HWY-05-MH-035

Henderson James

From: Youngdo Ind. Co., Ltd. [youngdo3@dicn.net]
Sent: Wednesday, January 04, 2006 5:55 AM
To: Henderson James
Cc: dhrhee@youngdovalve.com; youngdo Ind. Co., Ltd.
Subject: Re: Youngdo Ind.

Dear Mr. James E. Henderson

Many thanks for your email.

The marking stamped on the valve indicates date of manufacture.
 For example, "01-06A" represents "**year-month**"

And followings are the details for Burst Disc

1. The material of the frangible disk and fusible element : Copper plate and lead
2. Thickness : 0.15mm
3. Design : a drawing attached for your reference
4. The burst pressure range of the frangible device : 3024psi ~ 3360psi
5. The melting temperature range of the fusible material : 69.4°C ~ 76.7°C
6. The opening size of the pressure relief device : $\varnothing 5.2 \pm 5/100$
7. Test conducted by C-14 : There is no data. We understand that the fire test should be done by cylinder manufactures
 after installing the valve on the cylinder.

KiRyun Kim
 International Sales
 Youngdo Ind.Co.,Ltd.

----- Original Message -----

From: Henderson James
To: Youngdo Ind. Co., Ltd.
Sent: Thursday, December 15, 2005 11:23 PM
Subject: RE: Youngdo Ind.

WS Byun
 Section Manager
 International Sales
 Youngdo Ind. Co., Ltd.
 Dear Mr. or Ms. Byun:

The US National Transportation Safety Board is investigating a vehicle accident that occurred in Wilmer, Texas on 23 September 2005. This involved a bus transporting residents from a nursing home in Houston, Texas, to remove them from the path of a hurricane. Two residents were being provided supplemental oxygen and there were several spare medical oxygen cylinders in the bus. With the assistance of the cylinder manufacturers Luxfer and Catalina and the other valve manufacturer Sherwood HARSCO, we are examining these cylinders and their valves. We would like to get the specifications concerning the pressure relief devices on valves made by Youngdo. The valve that we are currently examining has Youngdo's symbol stamped on it with "01 -06A" on one side and "CGA 870 - Oxygen - Med" on the opposite side. We assume that the first marking is a date of

manufacture. How do we use those numbers to determine the date?

We would also like to know materials are used in the frangible disk and fusible element; the disk thickness and design; the burst pressure range of the frangible disk; the melting temperature range of the fusible material; and the opening size of the pressure relief device. Has Yong Do performed any fire testing as described in the Compressed Gas Association's pamphlet C-14? If so, could we get a copy of the results?

Our desire is to determine if the valve in this cylinder is in its original, as manufactured, condition.

For your information, the NTSB neither makes U.S. laws nor enforces them. We are solely an investigative agency. We attempt to determine the probable causes of accidents and we make recommendations to companies or agencies in an effort to prevent future accidents. These recommendations have no force of law.

If you are unaware of our structure and purpose, please visit our website at:

www.nts.gov

Sincerely,

James E. Henderson
Hazardous Materials Group Chairman
National Transportation Safety Board
490 L'Enfant Plaza East, S.W.
Washington, DC 20594-2000
(202) 314-6463
FAX (202) 314-6482

[Henderson James]
-----Original Message-----
From: Youngdo Ind. Co., Ltd. [mailto:youngdo1@chol.com]
Sent: Thursday, December 15, 2005 6:31 AM
To: Henderson James
Cc: DH Rhee
Subject: Youngdo Ind.

Dear Mr. Henderson:

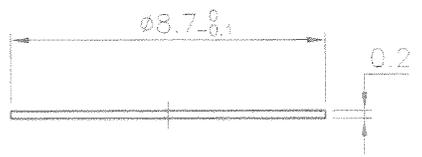
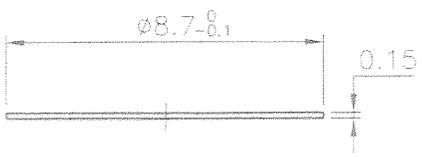
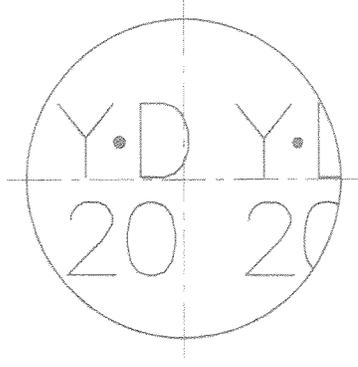
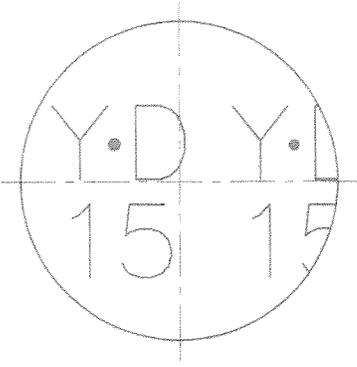
We have learned through our US representative in Miami that you wanted to contact us with regards to the accident in Texas.

Please let us know how we can help you. It is our understanding that you request us to supply a drawing of our medical valve. Please confirm soon.

Best Rgds

WS Byun
Section Manager
International Sales
Youngdo Ind. Co., Ltd.
Phone. 82-51-831-6081~3
Fax. 82-51 -831-6090
Mobile. 82-11-9538-1889
www.youngdovalve.com
youngdo1@chol.com

NOMINAL	-10	-30	-60	-120	-200
TOLERANCE	+ 0.1 - 0.1	+ 0.15 - 0.15	+ 0.2 - 0.2	+ 0.3 - 0.3	+ 0.4 - 0.4



Service Pressure : 2015(psi)

Service Pressure : 2216(psi)

안전변 작동 압력 : 3025~3360(psi)

안전변 작동 압력 : 3324~3693(psi)

크롬도금(Cr-coated)

크롬도금(Cr-coated)

APPR'D	CHECK'D	DRAWN DATE	△						
		2003.3.15	△						
		SCALE	△						
DRAWN	DESIGNED	5/1	△						
		MATERIAL	△						
		C1210S C1100	△						
MODEL YOC-0765S		SAFETY PLATE	NO.	ECO	NO	ECO	DATE	REVISIONS	DRAWN/CHECK'D
YOUNGDO.IND CO.,LTD.							DRAWING NO. YOC-0765S-15(B)		