Lloyd's Register

Lloyd's Register Verification

EC CERTIFICATE OF CONFORMITY

This is to certify that Lloyd's Register Verification, a Notified Body under the terms of:
The Pressure Equipment Directive 97/23/EC;
The Pressure Equipment Regulations 1999, UK Statutory Instrument 1999 No. 2001 and 2002 N. 1267, did (in accordance with Module F of the Directive) undertake an EC Product Verification on the stated pressure equipment to ensure its conformity with the requirements of the Directive which apply to it. The equipment identified below was shown to comply.

This certificate is issued to:

APPLICANT:

Faber Industrie S.p.A.
Cividale del Friuli
Udine
Italy

PRODUCT DESCRIPTION:

Cylinders for breathing apparatus
Drawing No.: EN-140-318-890 REV.0

Quantity	Capacity (L)	Batch & Serial No.	Manufacture date
200	5.0	09/0862/001÷202	2009/03

The above batch of Pressure Equipment, has been manufactured in accordance with EC Type Examination Certificate No:

CE-PED-B-FAB004-02-ITA

issued by Bureau Veritas - Italy, Notified Body No. 0062, on 03 May 2002.

As verified in the Manufacturer's Inspection and Test Certificate No: 09/0862 dated 18 March 2009 and manufacturing/production record endorsed by our Trieste Surveyors, Ref: VR-TRI 0930303/091, the final inspection and proof test in accordance with the requirements of Section 3.2 of the essential safety requirements was carried out on the above equipment.

Certificate No: *0038/PED/TRI 0930303/091*

Date of Issue: *18 March* 2009

Certificate Issue: 1

LRV Notified Body Number 0038

R. Costantino for and on behalf of Lloyd's Register Verification

Faber INDUSTRIE SPA	**CONFORMITY DECLARATION** (according to European Directive 97/23/CE -Annex VII) ***DICHIARAZIONE DI CONFORMITA'*** *(ai sensi della Direttiva Europea 97/23/CE -Allegato VII)*	PAG. 1 OF 1

The Company Faber Industrie s.p.a. – Via dell'Industria, 23 - XI Zona Industriale Cividale del Friuli (UD) – ITALY,
La società Faber Industrie s.p.a. – con sede in Via dell'Industria, 23 - XI Zona Industriale Cividale del Friuli (UD) – ITALIA,

DECLARES
DICHIARA

that the manufactured pressure equipment:
che l'attrezzatura a pressione costruita:

Definition: **CYLINDER FOR BREATHING APPARATUS**
Definizione: BOMBOLE PER APPARECCHIO RESPIRATORE

Drawing N°: **EN-140-318-890 REV.0**
N° disegno:

Water capacity V **5** litre/ *litri*
Capacità

Min. e max. allowable temperatures: **-50 ÷ +65 °C**
Temperatura min. e max. ammissibili:

Operating fluid: **1002 AIR**
Fluido contenuto:

Max. allowable pressure: **200** bar
Pressione max. ammissibile:

Manufacturer N°/ *N° di fabbrica*

No. of cylinders / *numero di bombole*

from/ *dal* **09/0862/001** to/ *al* **09/0862/202**

196

MEETS THE REQUIREMENTS OF DIRECTIVE 97/23/CE
E' CONFORME AI REQUISITI DELLA DIRETTIVA 97/23/CE

1. Conformity assessment procedures used: Module **B+F** (Category **III**)(Reference to Annex II and III of Directive 97/23/CE)
   *Procedura/e di valutazione di conformità utilizzata: Modulo **B+F** (Categoria **III**) (Riferimento allegati II e III della Direttiva 97/23/CE)*
2. Notified Body charged of the conformity assessment: N° **0038** **LLOYD'S REGISTER**
   Organismo Notificato incaricato della valutazione di conformità: N°
3. Registration number of "CE Type Examination Certificate": **CE-PED-B-FAB004-02-ITA**
   Estremi dell' "Attestato dell'esame CE del tipo":
4. Not harmonized standards applied to designing and manufacture: **EN 1964-1:1999**
   Norme non armonizzate applicate alla progettazione ed alla costruzione:
5. Harmonized standards applied to designing and manufacture: **None**
   *Norme armonizzate applicate alla progettazione ed alla costruzione: **Nessuna***
6. Others European Directives applied to the equipment: **None**
   *Eventuali altre Direttive europee applicate all'attrezzatura: **Nessuna***
7. Registration number of Conformity Certificate issued by the Notified Body charged of assessment procedure "Module F": **0038/PED/TRI 0930303/091**
   Estremi dell'Attestato di Conformità rilasciato dall'Organismo Notificato incaricato della procedura di valutazione "Modulo F":

It is declared that the equipment has been hydraulic tested with favourable result at the pressure of: (PT) **318** bar, it is marked CE 0038 and with identification data and the working parameters upside reported.
*Dichiara inoltre che l'attrezzatura è stata sottoposta con esito favorevole a prova di pressione idraulica di : (PT) **318** bar, che è stata marcata CE 0038 e con i dati identificativi e le caratteristiche di esercizio sopra riportati.*

The assembly must be subjected to a global conformity assessment procedure described in the directive PED 97/23/CE.
L'insieme deve essere sottoposto ad una procedura globale di valutazione di conformità così come previsto dalla direttiva PED 97/23/CE.

Cividale del Friuli 18/03/2009

Faber Industrie S.p.A.
Faber INDUSTRIE S.p.A. Cividale del Friuli

45998

Faber INDUSTRIE SPA

PRODUCTION TESTING CERTIFICATE OF SEAMLESS STEEL GAS CYLINDERS

Manufacturer: **FABER INDUSTRIE SPA - CIVIDALE DEL FRIULI - UDINE- ITALY**
Inspection: **LLOYD'S REGISTER** Specification: **EN 1964-1:1999 (PED)**
Customer: **Aerotecnica Coltri S.p.A.**
Owner stamping: **COLTRI SUB**
Manufacturer serial No. :
From **09/0862/001** to **09/0862/202**

Gas: **1002 AIR**

Total cylinders: **196**
Type of cylinder: **Seamless steel gas cylinders**
Material: **34CRMO4**

Working pressure at 15° C: **200** bar
Working temperature: **-50° ÷ +65° C**

Nominal data

Drawing no.	Test Pressure (bar)	Minimum Thickness wall (mm)	Minimum Thickness base (mm)	Nominal Diameter (mm)	Nominal Length without valve (mm)	Nominal Water Capacity (l)	Nominal Weight (Kg)
EN-140-318-890 REV.0	**318**	**3.1**	**3.1**	**140**	**440**	**5**	**5.7**

We hereby certify that the cylinders of the batch no. **09/0862** comply with the following requirements

Manufacturing process: cylinders manufactured from **plate**

Neck thread : **M25X2 EN 144-1 2000**

Identification marks stamped on cylinders shoulder according to drawing: **PPED004 2**

Minimum cylindrical shell thickness:

The wall thickness of all cylinders has been measured and found to be not less than : **3.1** mm

Hardness range:

All cylinders have been controlled within the following hardness values: Min **306** HB, Max **333** HB

Heat treatment:

All cylinders have been heat treated at the following temperatures:
Liquid quench: 900 °C ± 20 °C
Temper at: 570 °C ± 30 °C

Chemical analysis:

Material: **34CRMO4**

The cylinders of the batch no. **09/0862** have been manufactured from the following cast(s) of steel:

Cast Numb.	Code (*)	C (%)	Si (%)	Mn (%)	P (%)	S (%)	Cr (%)	Mo (%)	S+P (%)
14324	**BUB**	**0.33**	**0.24**	**0.64**	**0.012**	**0.005**	**1.01**	**0.22**	**0.017**

(*)marked on outer bottom surface

Lloyd's Register EMEA

Date: **18/03/2009**	For and on behalf of the manufacturer: Faber INDUSTRIE S.p.A. Cividale del Friuli	For and on behalf of A.I.A.

45998

MEASUREMENTS OF SAMPLE CYLINDERS:

Cylinder Serial no.	Water Capacity (L)	Empty Weight (Kg)	Minimum measured thickness	
			of the wall (mm)	of the base (mm)
09/0862/201	5	5.73	3.2	5.7
09/0862/202	5	5.73	3.2	5.7

MECHANICAL TESTS CARRIED OUT ON SAMPLE CYLINDERS:

Cylinder Serial no.	Code (*)	Test piece dimension (mm)	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Impact test -50°C			Bend test 180° without cracking
						Direction	Individual (J/cm²)	Mean (J/cm²)	
09/0862/201	BUB	10.1 x 3.4	919	1029	15.1	LONG	89 89 97	91	SATISF.
Minimum values specified			890	990	14		48	60	

BURST TESTS CARRIED OUT ON SAMPLE CYLINDERS:

Cylinder Serial no.	Code (*)	Hydraulic burst test bar	Description of the fracture
09/0862/202	BUB	530	LONGITUDINAL
Minimum values specified		509	

For and on behalf of the manufacturer:	For and on behalf of A.I.A.
Faber INDUSTRIE S.p.A. Cividale del Friuli	

TESTING OBJECT:

CYLINDER ACCORDING TO DRAWING: **EN-140-318-890 REV.0**
OUTSIDE DIAMETER: **140** mm WATER CAPACITY: **5** l
MIN. WALL THICKNESS: **3.1** mm NOMINAL LENGTH: **440** mm
FROM CYLINDER SERIAL No. : **09/0862/001** to **09/0862/202**

TEST TECHNICAL DATA:

EXAMINATION STANDARD: **EN 1964-1**
INSPECTED PART: **CYLINDRICAL WALL**
EXTENTION OF EXAMINATION: **100 %**
FABRICATION STAGE: **AFTER HEAT TREATMENT (QUENCHING AND TEMPERING), SHOT BLASTING AND BEFORE PRESSURE TESTING**
PROBES: **LONGITUDINAL,TRANSVERSAL AND THICKNESS**
COUPLANT: **EMULSIFIED WATER**
SCANNING DIRECTION: **CIRCUMFERENTIAL, AXIAL AND RADIAL DIRECTIONS**
REFERENCE REFLECTOR: **CALIBRATION CYLINDER ACCORDING TO EN 1964-1**

EXAMINATION RESULTS:

ALL CYLINDERS HAVE BEEN CHECKED GIVING SATISFACTORY RESULTS.

For and on behalf of the manufacturer:	For and on behalf of A.I.A.
Faber INDUSTRIE S.p.A. Cividale del Friuli	Lloyd's Register

Faber INDUSTRIE SPA	RECORD OF HYDROSTATIC TESTS ON CYLINDERS	PAG. 4 OF 11

LOT No. **09/0862** NUMBER OF CYLINDERS: **196** TEST DATE: **03/2009**

ACCORDING TO DWG.: **EN-140-318-890 REV.0**

WORKING PRESSURE AT 15° C: **200** bar

CYLINDER SIZE : OUTSIDE DIAMETER **140** mm LENGTH **440** mm

REMARKS: M = Mechanical Tests, B = Burst Tests, P = Prototype Tests, S = Cylinder Discarded, C = Cycling Test, C+B = Cycling + Burst Test.

FITTINGS : "CO" = Collar

CYLINDER SERIAL No.	CUSTOMER NUMBER	HEAT CODE AND NUMBER	TEST PRESSURE (bar)	CYLINDER WATER CAPACITY (l)	FITTINGS	MASS (Kg)	TARE (Kg)	REMARKS
09/0862/001		BUB 14324	318	5.0		5.73		
09/0862/002		BUB 14324	318	5.0		5.77		
09/0862/003		BUB 14324	318	5.0		5.78		
09/0862/004		BUB 14324	318	5.0		5.80		
09/0862/005		BUB 14324	318	5.0		5.77		
09/0862/006		BUB 14324	318	5.0		5.77		
09/0862/007		BUB 14324	318	5.0		5.73		
09/0862/008		BUB 14324	318	5.0		5.75		
09/0862/009		BUB 14324	318	5.0		5.76		
09/0862/010		BUB 14324	318	5.0		5.76		
09/0862/011		BUB 14324	318	5.0		5.78		
09/0862/012		BUB 14324	318	5.0		5.79		
09/0862/013		BUB 14324	318	5.0		5.78		
09/0862/014		BUB 14324	318	5.0		5.77		
09/0862/015		BUB 14324	318	5.0		5.77		
09/0862/016		BUB 14324	318	5.0		5.77		
09/0862/017		BUB 14324	318	5.0		5.79		
09/0862/018		BUB 14324	318	5.0		5.77		
09/0862/019		BUB 14324	318	5.0		5.78		
09/0862/020		BUB 14324	318	5.0		5.78		
09/0862/021		BUB 14324	318	5.0		5.75		
09/0862/022		BUB 14324	318	5.0		5.75		
09/0862/023		BUB 14324	318	5.0		5.75		
09/0862/024		BUB 14324	318	5.0		5.77		
09/0862/025		BUB 14324	318	5.0		5.77		
09/0862/026		BUB 14324	318	5.0		5.77		
09/0862/027		BUB 14324	318	5.0		5.78		
09/0862/028		BUB 14324	318	5.0		5.75		
09/0862/029		BUB 14324	318	5.0		5.78		
09/0862/030		BUB 14324	318	5.0		5.78		
09/0862/031		BUB 14324	318	5.0		5.75		
09/0862/032		BUB 14324	318	5.0		5.75		
09/0862/033		BUB 14324	318	5.0		5.75		
09/0862/034		BUB 14324	318	5.0		5.77		
09/0862/035		BUB 14324	318	5.0		5.76		
09/0862/036		BUB 14324	318	5.0		5.77		
09/0862/037		BUB 14324	318	5.0		5.78		
09/0862/038		BUB 14324	318	5.0		5.76		
09/0862/039		BUB 14324	318	5.0		5.76		
09/0862/041		BUB 14324	318	5.0		5.79		

Manufacturer stamp and signature:	A.I.A. stamp and signature:
Faber INDUSTRIE S.p.A. Cividale del Friuli	

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Faber INDUSTRIE SPA	RECORD OF HYDROSTATIC TESTS ON CYLINDERS	PAG. 5 OF 11

LOT No. **09/0862** NUMBER OF CYLINDERS: **196** TEST DATE: **03/2009**

ACCORDING TO DWG.: **EN-140-318-890 REV.0**

WORKING PRESSURE AT 15° C: **200** bar

CYLINDER SIZE : OUTSIDE DIAMETER **140** mm LENGTH **440** mm

REMARKS: M = Mechanical Tests, B = Burst Tests, P = Prototype Tests, S = Cylinder Discarded, C = Cycling Test, C+B = Cycling + Burst Test.

FITTINGS : "CO" = Collar

CYLINDER SERIAL No.	CUSTOMER NUMBER	HEAT CODE AND NUMBER	TEST PRESSURE (bar)	CYLINDER WATER CAPACITY (l)	FITTINGS	MASS (Kg)	TARE (Kg)	REMARKS
09/0862/042		BUB 14324	318	5.0		5.77		
09/0862/043		BUB 14324	318	5.0		5.78		
09/0862/044		BUB 14324	318	5.0		5.78		
09/0862/045		BUB 14324	318	5.0		5.80		
09/0862/046		BUB 14324	318	5.0		5.78		
09/0862/047		BUB 14324	318	5.0		5.79		
09/0862/048		BUB 14324	318	5.0		5.80		
09/0862/049		BUB 14324	318	5.0		5.78		
09/0862/050		BUB 14324	318	5.0		5.76		
09/0862/051		BUB 14324	318	5.0		5.79		
09/0862/052		BUB 14324	318	5.0		5.77		
09/0862/053		BUB 14324	318	5.0		5.80		
09/0862/054		BUB 14324	318	5.0		5.79		
09/0862/055		BUB 14324	318	5.0		5.78		
09/0862/056		BUB 14324	318	5.0		5.81		
09/0862/057		BUB 14324	318	5.0		5.80		
09/0862/058		BUB 14324	318	5.0		5.82		
09/0862/059		BUB 14324	318	5.0		5.79		
09/0862/060		BUB 14324	318	5.0		5.77		
09/0862/061		BUB 14324	318	5.0		5.80		
09/0862/062		BUB 14324	318	5.0		5.79		
09/0862/063		BUB 14324	318	5.0		5.79		
09/0862/064		BUB 14324	318	5.0		5.72		
09/0862/065		BUB 14324	318	5.0		5.75		
09/0862/066		BUB 14324	318	5.0		5.75		
09/0862/067		BUB 14324	318	5.0		5.73		
09/0862/068		BUB 14324	318	5.0		5.75		
09/0862/069		BUB 14324	318	5.0		5.76		
09/0862/070		BUB 14324	318	5.0		5.76		
09/0862/071		BUB 14324	318	5.0		5.74		
09/0862/072		BUB 14324	318	5.0		5.73		
09/0862/073		BUB 14324	318	5.0		5.77		
09/0862/074		BUB 14324	318	5.0		5.72		
09/0862/075		BUB 14324	318	5.0		5.76		
09/0862/077		BUB 14324	318	5.0		5.74		
09/0862/078		BUB 14324	318	5.0		5.75		
09/0862/079		BUB 14324	318	5.0		5.75		
09/0862/080		BUB 14324	318	5.0		5.76		
09/0862/081		BUB 14324	318	5.0		5.74		
09/0862/082		BUB 14324	318	5.0		5.78		

Manufacturer stamp and signature:	A.I.A. stamp and signature:
Faber INDUSTRIE S.p.A. Cividale del Friuli	

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Faber INDUSTRIE SPA	RECORD OF HYDROSTATIC TESTS ON CYLINDERS	PAG. 6 OF 11

LOT No. **09/0862** NUMBER OF CYLINDERS: **196** TEST DATE: **03/2009**

ACCORDING TO DWG.: **EN-140-318-890 REV.0**

WORKING PRESSURE AT 15° C: **200** bar

CYLINDER SIZE : OUTSIDE DIAMETER **140** mm LENGTH **440** mm

REMARKS: M = Mechanical Tests, B = Burst Tests, P = Prototype Tests, S = Cylinder Discarded, C = Cycling Test, C+B = Cycling + Burst Test.

FITTINGS : "CO" = Collar

CYLINDER SERIAL No.	CUSTOMER NUMBER	HEAT CODE AND NUMBER	TEST PRESSURE (bar)	CYLINDER WATER CAPACITY (l)	FITTINGS	MASS (Kg)	TARE (Kg)	REMARKS
09/0862/083		BUB 14324	318	5.0		5.75		
09/0862/084		BUB 14324	318	5.0		5.77		
09/0862/085		BUB 14324	318	5.0		5.77		
09/0862/086		BUB 14324	318	5.0		5.77		
09/0862/087		BUB 14324	318	5.0		5.78		
09/0862/088		BUB 14324	318	5.0		5.75		
09/0862/089		BUB 14324	318	5.0		5.78		
09/0862/090		BUB 14324	318	5.0		5.77		
09/0862/091		BUB 14324	318	5.0		5.76		
09/0862/092		BUB 14324	318	5.0		5.76		
09/0862/093		BUB 14324	318	5.0		5.77		
09/0862/094		BUB 14324	318	5.0		5.74		
09/0862/095		BUB 14324	318	5.0		5.75		
09/0862/096		BUB 14324	318	5.0		5.75		
09/0862/097		BUB 14324	318	5.0		5.74		
09/0862/098		BUB 14324	318	5.0		5.74		
09/0862/099		BUB 14324	318	5.0		5.76		
09/0862/101		BUB 14324	318	5.0		5.77		
09/0862/102		BUB 14324	318	5.0		5.74		
09/0862/103		BUB 14324	318	5.0		5.74		
09/0862/104		BUB 14324	318	5.0		5.80		
09/0862/105		BUB 14324	318	5.0		5.79		
09/0862/106		BUB 14324	318	5.0		5.77		
09/0862/107		BUB 14324	318	5.0		5.76		
09/0862/108		BUB 14324	318	5.0		5.73		
09/0862/109		BUB 14324	318	5.0		5.77		
09/0862/110		BUB 14324	318	5.0		5.76		
09/0862/111		BUB 14324	318	5.0		5.75		
09/0862/112		BUB 14324	318	5.0		5.76		
09/0862/113		BUB 14324	318	5.0		5.74		
09/0862/114		BUB 14324	318	5.0		5.75		
09/0862/115		BUB 14324	318	5.0		5.73		
09/0862/116		BUB 14324	318	5.0		5.76		
09/0862/117		BUB 14324	318	5.0		5.74		
09/0862/118		BUB 14324	318	5.0		5.75		
09/0862/119		BUB 14324	318	5.0		5.76		
09/0862/120		BUB 14324	318	5.0		5.79		
09/0862/121		BUB 14324	318	5.0		5.78		
09/0862/122		BUB 14324	318	5.0		5.82		
09/0862/123		BUB 14324	318	5.0		5.76		

Manufacturer stamp and signature:	A.I.A. stamp and signature:
Faber INDUSTRIE S.p.A. Cividale del Friuli	

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Faber INDUSTRIE SPA	RECORD OF HYDROSTATIC TESTS ON CYLINDERS	PAG. 7 OF 11

LOT No. **09/0862** NUMBER OF CYLINDERS: **196** TEST DATE: **03/2009**

ACCORDING TO DWG.: **EN-140-318-890 REV.0**

WORKING PRESSURE AT 15° C: **200** bar

CYLINDER SIZE : OUTSIDE DIAMETER **140** mm LENGTH **440** mm

REMARKS: M = Mechanical Tests, B = Burst Tests, P = Prototype Tests, S = Cylinder Discarded, C = Cycling Test, C+B = Cycling + Burst Test.

FITTINGS : "CO" = Collar

CYLINDER SERIAL No.	CUSTOMER NUMBER	HEAT CODE AND NUMBER	TEST PRESSURE (bar)	CYLINDER WATER CAPACITY (l)	FITTINGS	MASS (Kg)	TARE (Kg)	REMARKS
09/0862/124		BUB 14324	318	5.0		5.78		
09/0862/125		BUB 14324	318	5.0		5.74		
09/0862/126		BUB 14324	318	5.0		5.78		
09/0862/127		BUB 14324	318	5.0		5.78		
09/0862/128		BUB 14324	318	5.0		5.78		
09/0862/129		BUB 14324	318	5.0		5.73		
09/0862/130		BUB 14324	318	5.0		5.76		
09/0862/131		BUB 14324	318	5.0		5.74		
09/0862/132		BUB 14324	318	5.0		5.74		
09/0862/133		BUB 14324	318	5.0		5.76		
09/0862/134		BUB 14324	318	5.0		5.76		
09/0862/135		BUB 14324	318	5.0		5.75		
09/0862/136		BUB 14324	318	5.0		5.75		
09/0862/137		BUB 14324	318	5.0		5.77		
09/0862/138		BUB 14324	318	5.0		5.76		
09/0862/139		BUB 14324	318	5.0		5.76		
09/0862/140		BUB 14324	318	5.0		5.73		
09/0862/141		BUB 14324	318	5.0		5.80		
09/0862/142		BUB 14324	318	5.0		5.77		
09/0862/143		BUB 14324	318	5.0		5.73		
09/0862/144		BUB 14324	318	5.0		5.80		
09/0862/145		BUB 14324	318	5.0		5.76		
09/0862/146		BUB 14324	318	5.0		5.76		
09/0862/147		BUB 14324	318	5.0		5.74		
09/0862/148		BUB 14324	318	5.0		5.75		
09/0862/149		BUB 14324	318	5.0		5.75		
09/0862/150		BUB 14324	318	5.0		5.75		
09/0862/151		BUB 14324	318	5.0		5.74		
09/0862/152		BUB 14324	318	5.0		5.76		
09/0862/153		BUB 14324	318	5.0		5.76		
09/0862/154		BUB 14324	318	5.0		5.80		
09/0862/155		BUB 14324	318	5.0		5.75		
09/0862/156		BUB 14324	318	5.0		5.73		
09/0862/157		BUB 14324	318	5.0		5.80		
09/0862/158		BUB 14324	318	5.0		5.77		
09/0862/159		BUB 14324	318	5.0		5.73		
09/0862/160		BUB 14324	318	5.0		5.76		
09/0862/161		BUB 14324	318	5.0		5.78		
09/0862/162		BUB 14324	318	5.0		5.75		
09/0862/163		BUB 14324	318	5.0		5.76		

Manufacturer stamp and signature:	A.I.A. stamp and signature:
Faber INDUSTRIE S.p.A. Cividale del Friuli	

45998

Faber INDUSTRIE SPA

RECORD OF HYDROSTATIC TESTS ON CYLINDERS

LOT No. 09/0862 NUMBER OF CYLINDERS: 196 TEST DATE: 03/2009

ACCORDING TO DWG.: EN-140-318-890 REV.0

WORKING PRESSURE AT 15° C: 200 bar

CYLINDER SIZE : OUTSIDE DIAMETER 140 mm LENGTH 440 mm

REMARKS: M = Mechanical Tests, B = Burst Tests, P = Prototype Tests, S = Cylinder Discarded, C = Cycling Test, C+B = Cycling + Burst Test.

FITTINGS : "CO" = Collar

CYLINDER SERIAL No.	CUSTOMER NUMBER	HEAT CODE AND NUMBER	TEST PRESSURE (bar)	CYLINDER WATER CAPACITY (l)	FITTINGS	MASS (Kg)	TARE (Kg)	REMARKS
09/0862/164		BUB 14324	318	5.0		5.77		
09/0862/165		BUB 14324	318	5.0		5.77		
09/0862/166		BUB 14324	318	5.0		5.74		
09/0862/167		BUB 14324	318	5.0		5.77		
09/0862/168		BUB 14324	318	5.0		5.79		
09/0862/169		BUB 14324	318	5.0		5.75		
09/0862/170		BUB 14324	318	5.0		5.75		
09/0862/171		BUB 14324	318	5.0		5.78		
09/0862/172		BUB 14324	318	5.0		5.75		
09/0862/173		BUB 14324	318	5.0		5.74		
09/0862/174		BUB 14324	318	5.0		5.75		
09/0862/175		BUB 14324	318	5.0		5.75		
09/0862/176		BUB 14324	318	5.0		5.74		
09/0862/177		BUB 14324	318	5.0		5.76		
09/0862/178		BUB 14324	318	5.0		5.74		
09/0862/180		BUB 14324	318	5.0		5.75		
09/0862/181		BUB 14324	318	5.0		5.77		
09/0862/182		BUB 14324	318	5.0		5.76		
09/0862/183		BUB 14324	318	5.0		5.74		
09/0862/184		BUB 14324	318	5.0		5.76		
09/0862/185		BUB 14324	318	5.0		5.74		
09/0862/186		BUB 14324	318	5.0		5.74		
09/0862/187		BUB 14324	318	5.0		5.77		
09/0862/188		BUB 14324	318	5.0		5.76		
09/0862/189		BUB 14324	318	5.0		5.78		
09/0862/190		BUB 14324	318	5.0		5.76		
09/0862/191		BUB 14324	318	5.0		5.79		
09/0862/192		BUB 14324	318	5.0		5.75		
09/0862/193		BUB 14324	318	5.0		5.78		
09/0862/194		BUB 14324	318	5.0		5.76		
09/0862/195		BUB 14324	318	5.0		5.75		
09/0862/196		BUB 14324	318	5.0		5.75		
09/0862/197		BUB 14324	318	5.0		5.77		
09/0862/198		BUB 14324	318	5.0		5.74		
09/0862/199		BUB 14324	318	5.0		5.76		
09/0862/200		BUB 14324	318	5.0		5.74		

Manufacturer stamp and signature:

Faber INDUSTRIE S.p.A.

A.I.A. stamp and signature:

45998

Istruzioni operative per il montaggio, la messa in servizio, l'impiego, la manutenzione e le visite periodiche delle bombole in acciaio per auto-respiratori subacquei (PED 97/23/CE) .

-La bombola per l'apparecchio respiratore è soggetta ai regolamenti e alle norme per l'uso, manutenzione e le ispezione periodiche, vigenti nel paese in cui viene utilizzata. E' responsabilità del proprietario della bombola eseguire le visite periodiche siano entro i termini prefissati. Si raccomanda di sottoporre la bombola ad un controllo visivo interno ed esterno da personale competente almeno una volta l'anno.

-L'insieme (costituito da varie attrezzature a pressione montate per costruire un tutto integro e funzionale "apparecchio respiratore") deve soddisfare i requisiti essenziali di sicurezza di cui all'allegato I della direttiva PED 97/23/CE.

-L'insieme deve essere sottoposto ad una procedura globale di valutazione di conformità così come previsto dalla direttiva PED 97/23/CE.

-E' di importanza vitale avere sempre estrema attenzione alla cura e alla manutenzione della bombola per respiratori subacquei. E' essenziale che il respiratore subacqueo sia accuratamente esaminato per verificare l'eventuale presenza di danneggiamenti o difetti dopo ogni utilizzo. Tutti i difetti devono essere eliminati prima che il respiratore subacqueo venga di nuovo utilizzato. La mancanza di cura durante la manipolazione, con attrezzatura impropria, può non solo innescare difetti pericolosi, ma rendere le successive manutenzioni costose o addirittura impossibili.

- Le bombole devono essere manipolate con cura non devono essere fatte cadere. Quando trasportate devono essere bloccate in maniera sicura in modo tale che non si muovano durante il trasporto.

-Le condizioni della superficie interna delle bombole possono essere mantenute integre solo se la superficie interna rimane sempre asciutta. La bombola deve essere caricata con aria secca (contenuto d'acqua < 50 mg/m^3 per una pressione di carica di 200 bar e contenuto d'acqua < 35mg/m^3 per una pressione di carica maggiore di 200 bar, secondo EN12021) e non deve mai essere completamente scaricata in quanto dell'acqua potrebbe essere risucchiata all'interno della bombola contaminandola.

Operating instructions for the mounting, putting into service, use, maintenance and periodic inspection of Faber Steel Cylinders for Scuba Diving (PED 97/23/CE).

-The cylinder for breathing apparatus is subjected to the national regulations and standards for the use, maintenance and periodic inspection, in force in the country of use. The owner of pressure equipment is responsible that periodical inspections are carried out as required by the national regulation and standards. It is recommended that the cylinder will be inspected visually (internally and externally) by a competent person at least annually.

-The assembly (that means several pieces of pressure equipment assembled to constitute an integrated and functional whole "breathing apparatus") must satisfy the essential safety requirements set out in Annex I of the directive PED 97/23/CE.

-The assembly shall be subjected to a global conformity assessment procedure described in the directive PED 97/23/CE.

-Strict attention to care and maintenance of all types of breathing apparatus used underwater is of vital importance at all times.
It is essential than the complete equipment be thoroughly examined for damage or defect before and after every occasion on which it is used. All defects should be rectified before the equipment is used again. Careless manipulation with inappropriate tools may not only give rise to dangerous defects, but render further maintenance expensive or impossible.

- Cylinders should be handled with care and should not be dropped. When being transported they should be firmly secured so that they cannot move about.

- The condition of the inside of the cylinder can be maintained by keeping it dry at all times. The cylinder should be filled with dry air (Water content <50 mg/m^3 for a charging pressure of 200 bar and water content < 35mg/m^3 for a charging pressure greater than 200 bar, as for EN12021), and never completely discharged as this can lead to water getting back into the cylinder and causing contamination.

Le bombole devono essere immagazzinate, preferibilmente in posizione verticale, in un posto fresco, secco e lontane da fonti di calore.
-Dopo l'uso, soprattutto in a acqua di mare, dalla bombola devono essere tolti le cinghie e il fondello e accuratamente lavata con acqua dolce al fine di rimuovere le tracce di acqua salata e lo sporco, specialmente dalle cavità e poi asciugata. Prima dell'immagazzinamento, o quando la bombola è stata completamente scaricata e l'acqua di mare può essere entrata nella bombola, la valvola deve essere rimossa dalla bombola e la bombola deve essere lavata internamente ed esternamente con acqua dolce e accuratamente asciugata. Questa operazione deve essere normalmente fatta da personale competente. Mai svitare o rimuovere la valvola con la bombola in pressione. La bombola non deve essere immagazzinata con la valvola rivolta all'ingiù. L'azione corrosiva dell'acqua di mare non deve essere mai sottovalutata, se non vengono prese opportune precauzioni per la pulizia delle bombole dopo l'utilizzo, seri danni potranno essere arrecati alla bombola durante il periodo in cui rimarrà inutilizzata. Anche se si fanno immersioni in acqua dolce, ci possono essere delle sostanze corrosive in soluzione quali rifiuti chimici e oleosi che non sono visibili al momento, ma che possono innescare una azione corrosiva se lasciate a contatto con la bombola.
- La verniciatura, la metallizzazione e i componenti devono essere mantenuti in buone condizioni. Abrasioni e graffi delle bombole devono essere evitate. Per la rimozione della vernice non devono essere utilizzati metodi chimici o a caldo. Zone di corrosione della bombola possono essere eliminate solo secondo le normative nazionali applicabili (Es.:BS 5430). Dopo la necessaria preparazione, la bombola può essere riverniciata. La bombola non deve essere modificata in nessuna circostanza. Questo può comportare seri indebolimenti della bombola e portare ad incidenti. La filettatura della bombola non deve essere alterata in alcun modo. Boccole o adattatori non devono essere utilizzati. Se la bombola non viene utilizzata per un lungo periodo di tempo si raccomanda che debba essere vista da personale competente per essere scaricata e successivamente ricaricata con una leggera pressione positiva. Se la bombola non viene ricaricata subito, deve essere lasciata con la valvola chiusa. Una bombola che è risultata scarta all'ispezione deve essere resa inutilizzabile da personale competente.

Cylinders should be stored, preferably in the vertical position, in a cool, dry place and away from excessive heat.
-After use, particularly in seawater, the outside surface of the cylinder should be removed from its harness and boot and then washed in clean, fresh water to remove all traces of salt water and dirt, especially from any crevices and then dried.
Before storage, or when the cylinder has been completely discharged and seawater may have entered the cylinder, the cylinder valve should be removed and the cylinder washed internally and externally in clean fresh water and thoroughly dried. This operation should normally be undertaken by a competent person. Never unscrew or remove the valve when the cylinder is under pressure.
The cylinder should not be stored with the valve downwards.
The corrosion action of seawater and water-borne contaminants should never be underestimated, and if precautions are not taken to clean the apparatus properly after use, serious damage may be caused to all parts of the apparatus while it is stowed away. Even when diving in apparently fresh water, there may be corrosive substances in solution such as chemical and petroleum wastes which are not noticeable at the time, but which will start corrosive action if left in contact with the apparatus.

- The paintwork, metal spray undercoating and fittings should be kept in good condition. Scratching of cylinders should be avoided. Heat or chemical process may not be used to remove old paint. Corrosion on cylinders should also be removed in accordance with national standards in force in the country of use (Eg.: BS 5430). After the necessary preparation, cylinders should be re-painted. Cylinders should not be modified under any circumstance. This may result in serious weakening of cylinder and lead to accident. The threads in the cylinder neck should not be altered in any way. Bushes or adapters should not be used. If the cylinder is not required for a long period it is recommended that it be returned to a competent person for discharging, removal of the valve, extraction of any oil or water, drying out and refitting of the valve. The cylinder should then be recharged to a slight positive pressure. If the cylinder is not to be recharged immediately, it should be left with the valve closed. A cylinder that has failed on inspection should be left with a competent person who will then destroy it.

- La ricarica deve essere fatta solo con idonei impianti che assicurino the l'aria compressa sia esente da umidità, olio e altre impurità, e che è adeguata all'utilizzo per respiratori subacquei.
Mai caricare ossigeno o altri gas diversi dall'aria nelle bombole per aria.
Prima della carica della bombola, è responsabilità della ditta o persona che esegue la carica verificare che la bombola sia conforme ai regolamenti nazionali in vigore.
E' essenziale che le bombole siano caricate con attenzione e lentamente al fine di prevenire sovraccariche e surriscaldamenti, e che la pressione di carica sia tale che, dopo raffreddamento a temperatura ambiente, la pressione di carica della bombola non sia superata.
La pressione di esercizio massima ammissibile a 15°C ed espressa in bar è punzonata sulla bombola. Sovraccaricare le bombole è altamente pericoloso. L'identificazione della sigla della filettatura della bombola è punzonata sulla bombola. Utilizzare valvole con filettatura diversa è vietato perché altamente pericoloso.

- Recharging should be undertaken only with proper equipment that ensures that the compressed air is free from moisture, oil and other impurities, and is fit for breathing purposes. Never put oxygen or any gas, other than air, in an air cylinder.

Before recharging a cylinder, it is the responsibility of the gas compressing firm or person to ensure that the cylinder complies with statutory regulations.
It is essential that cylinders be charged carefully and slowly to prevent overcharging and overheating, and that the charging pressure be such that, after cooling to ambient temperature, the maximum allowable pressure for the cylinder is not exceeded.
The maximum allowable pressure at 15°C, in bar, is stamped on the cylinder.
Overcharging of cylinders is highly dangerous.
The identification code of the neck tread is stamped on the cylinder. Use of valves with different threads are forbidden because highly dangerous.