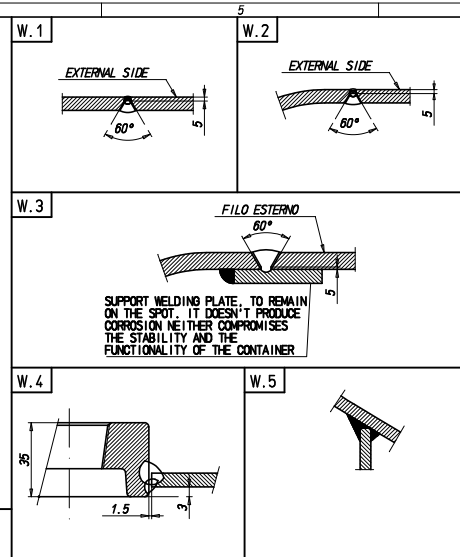
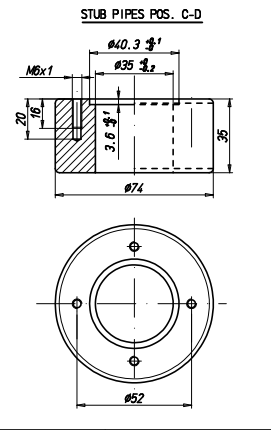
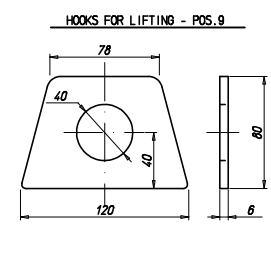
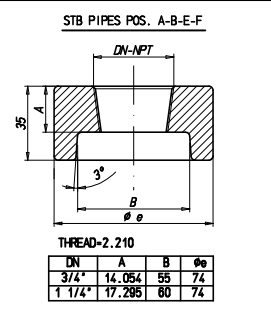
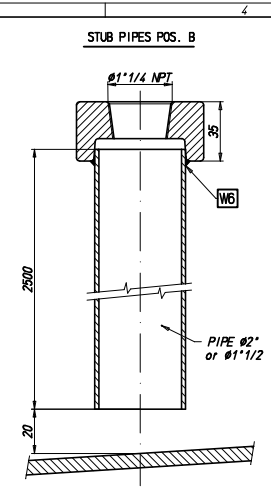
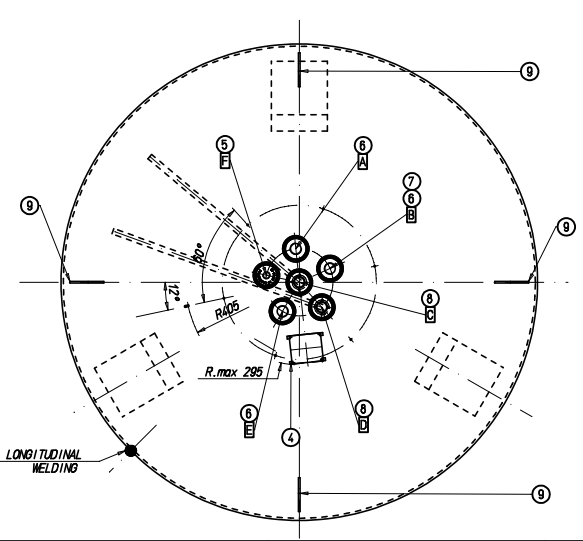
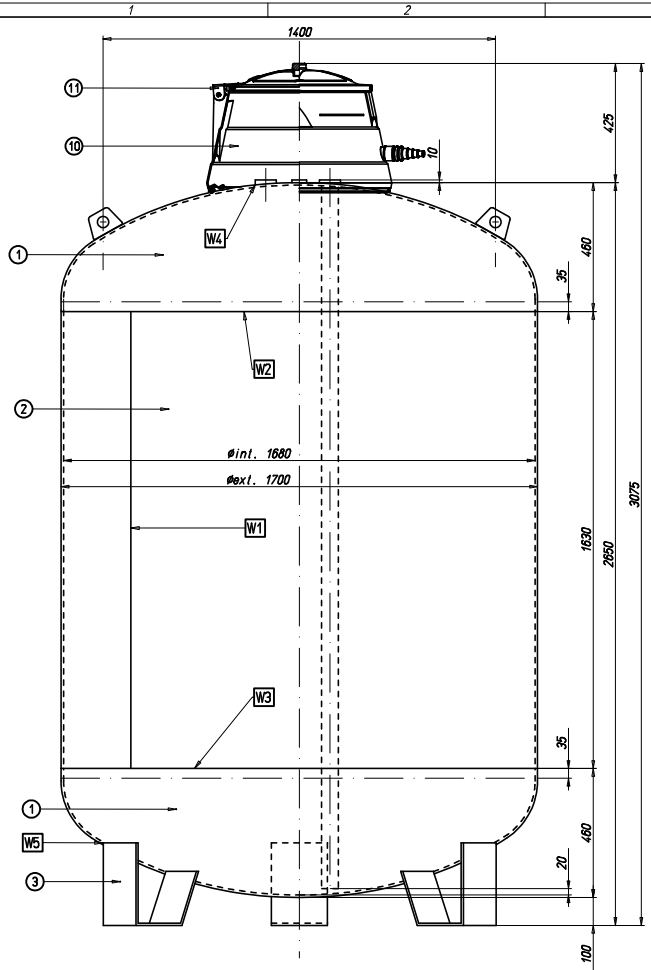


TECHNICAL DATA PLATE

Antonio Merloni MATERICA-MC ITALY

CUSTOMER: 17.65 Bar, 25.25 Year, TARE KG

PS Bar TS PT Bar YEAR TARE KG

17.65 Bar L P G WAPONS - TETRENE TEST DATE

CALIBRAT. VALVE FLUID TYPE MASS KG

FACTORY No MAX DEGREE OF FILLING 80%

CE II 3G IIB T4 CE 0100

112

LIQUID GAS

CONVENZIONAL NAME	TENS. VAP. +50 °C bar	Kg./LITRE	C ₂ H ₆ %	MIXTURE STABILZ. %
MAPP GAS	14.5	0.46	63	37
TETRENE	15.4	0.46	41.5	58.5
PROPANE COM.	17.9	0.42	-	-
BUTANE COM.	7.1	0.50	-	-
MIXTURE PROPANE/BUTANE	17.9-7.1	0.42	-	-

FEET - POS. 3

POS.	TYPE	No. PIECES	MATERIALS	NOTES
1	Ellipsoidal ends 2:1 nominal thickness 10mm Minimum thickness of calculation 8.85mm	2	P 355 NH UNI EN 10028.3	NORMALIZED AFTER FORMING
2	Steel plate mm 1650x5670 nominal thick. 9.5 Minimum thickness of calculation 9.0mm	1	P 355 NH UNI EN 10028.3	Cylindrical shell
3	Steel plate mm 675 x 200 thick. 8	3	S 235 JR UNI EN 10025	feet
4	Steel plate mm 185 x 10 thick. 3	2	S 235 JR UNI EN 10025	plate support
5	Stub pipe threaded 3/4" NPT	1	ASTM A 350 LF 2	
6	Stub pipe threaded 1 1/4" NPT	3	ASTM A 350 LF 2	
7	Pipe 60.3 Length mm. 2500	1	ASTM A 333 Gr 6	
8	Stub pipe 674	2	ASTM A 350 LF 2	for level indicator
9	Steel plate 120 x 80 sp. thick. 6	4	S 235 JR UNI EN 10025	hooks for lifting
10	Protection Hood	1	polyethylene HD	
11	Cover of Protection hood	1	inox steel green painted	

LIST OF FITTINGS

POS.	No.	Φ/D.N.	TYPE	SERVICE
A	1	1 1/4	STUB PIPE THREADED NPT	SAFETY RELIEF VALVE
B	1	1 1/4	STUB PIPE THREADED NPT	LIQUID WITHDRAWAL
C	1	Φ 74	STUB PIPE	LEVEL GAUGE INDICATOR
D	1	Φ 74	STUB PIPE	LEVEL GAUGE INDICATOR
E	1	1 1/4	STUB PIPE THREADED NPT	FILLER VALVE
F	1	3/4	STUB PIPE THREADED NPT	MULTIVALVE ASSEMBLY

NOTE GENERALI

- The holes of the flanges will have to be jogged respect of the principal axes of the tank showed on the drawing.
- Except where otherwise pointed out, the welding will be continuous and will have the cathetus of welding equal to 7/10 of the least thickness to weld.
- The inside edges of the openings will have rounded out.
- Elliptical ends formed to cold in an only piece (EN14075 point 7.5.2.1)
- Tank projected, built and tested in according to 97/23/CE directive.
- Weldings according to ISPESL CODE "S" TABLE 59.10
- The materials will be supplied with quality certificate in according to EN 10204 3.1.B.
- Finish external surfaces: sandblasting gr. SA 2 1/2 painting with epoxy resins thick. ≥ 500μ
- All the measures are express in millimeters.
- The thickness of the sheet metal are net of the manufacturing and working tolerances.
- In the project and planning, all the loads stated in the article 1 of D.M. 21-11-72.
- The containers, during the operation are not subject to any corrosive, abrasive, or erosive action.
- Dimension tolerance on diameter and cylindrical length=±%
- The CE marking and all the information required are carried on the technical data plate (pos.4) welded on the tank.

PROJECT DATA

Design pressure (PS): 1,765 MPa
 Test Pressure (PT): 2,524 MPa
 Design temperature (TS): -25+50 °C
 Service fluids: see table

Calculation norm: EN14075 annex E and VSR rev.'95 ed.'99 in according to PED
 Ance joint efficiency: 0.85

RX of the weldings according to ISPESL CODE "S"
 Defectology in according to Annex D EN14075 Table D1-D2-D3
 Category P.E.D.: IV
 Ovality max.: %



Antonio Merloni
 CYLINDRICAL TANKS
 UNDERGROUND VERTICAL TANK LPS
 Ø1700
 W.C. 5.000 LITRES

TECHNICAL DATA PLATE

17.65 Bar, 25.25 Year, TARE KG

PS Bar TS PT Bar YEAR TARE KG

17.65 Bar L P G WAPONS - TETRENE TEST DATE

CALIBRAT. VALVE FLUID TYPE MASS KG

FACTORY No MAX DEGREE OF FILLING 80%

CE II 3G IIB T4 CE 0100

112

Antonio Merloni
 CYLINDRICAL TANKS
 UNDERGROUND VERTICAL TANK LPS
 Ø1700
 W.C. 5.000 LITRES

TECHNICAL DATA PLATE

17.65 Bar, 25.25 Year, TARE KG

PS Bar TS PT Bar YEAR TARE KG

17.65 Bar L P G WAPONS - TETRENE TEST DATE

CALIBRAT. VALVE FLUID TYPE MASS KG

FACTORY No MAX DEGREE OF FILLING 80%

CE II 3G IIB T4 CE 0100

112



**ANTONIO MERLONI
CYLINDERS GHERGO GROUP S.P.A.**
Official distributor in Russia and CIS, Group of Companies «Terrikom».



Via Aristide Merloni, 2 - 62024 Matelica (MC) - ITALY

5000 Litre Tank Fab. №.: 12MC0001128

CERTIFICATE OF CONFORMITY

The Antonio Merloni C. & T. s.r.l. company declares that this tank was built in conformity with the provisions foreseen in the current norms with regards to pressure appliance and that is protected for underground installation from corrosion using the method described in the circular letter from the M.I. no. P. 2004/4106 dated 27/10/1995 and in the letter no. P. 734/4106 dated 18/04/1996 from the D.G.P.C. and S.A.

The handbook entitled "INSTALLATION AND MAINTENANCE MANUAL", an integral part of the certification, includes the technical sheets and certifications as required by the circular letter from the M.I. no. P. 2004/4106 sott. 40 del 27/10/1995.

The metal tank is anchored to a cement base of a suitable weight to support the fluid pressure of the same.

The lid is provided with a key lock in order to allow access to the tank aperture for the users only, as well as for those in charge of maintenance and filling.

Moreover, the lid is equipped with an air valve which opens at a pressure of 150 millibars.

The same tank conforms to the prototype that underwent testing by the T.E.S.I. S.r.l. with relation to test no. 016/C dated 15.04.1996.

Antonio Merloni Cylinders Ghergo Group S.p.A.
Technical manager
Eng. Virgilio Pizzichelli
Viale Serafini, 93 - Fabriano
The Order of Engineers in the Province of Ancona, № 267

TEST CERTIFICATE (TUBERO EPOX)

MINIMUM THICKNESS

Following a check carried out using a ELCOMETER 345 suitably gauged before the measurement, it is hereby declared that the coating thickness of the tank in question CONFORMS TO the requirements included in the circular letter from the M.I. no. P. 2004/4106 sott. 40 dated 27/10/1995.

DIELECTRIC CONTINUITY

Following tests carried out using the "HOLIDAY DETECTOR" ELME - ISOLTEST HD93 Serial No. 1116 with sensor Serial No. 10569/95 with a voltage equal to 5 KV, it is hereby declared that the dielectric continuity of the coating of the tank in question CONFORMS TO the requirements included in the circular letter from the M.I. no. P. 2004/4106 sott. 40 dated 27/10/1995.

ADHESION

Following a check carried out on a small plate connected to the foot of the tank with tearing by means of "DOLLY" using the ELCOMETER instrument model 108 Serial No. 13074614, it is hereby declared that the coating adhesion of the tank in question CONFORMS TO the requirements included in the circular letter from the M.I. no. P. 2004/4106 sott. 40 dated 27/10/1995.

Antonio Merloni Cylinders Ghergo Group S.p.A.
Technical manager
Eng. Virgilio Pizzichelli
Viale Serafini, 93 - Fabriano
The Order of Engineers in the Province of Ancona, № 267



**ANTONIO MERLONI
CYLINDERS GHERGO GROUP S.P.A.**
Official distributor in Russia and CIS, Group of Companies «Terrikom».



Equipment type: **Gas Vessel**

Fabrication №: **12MC0001128**

Manufacturer: **Antonio Merloni Cylinders & Tanks s.r.l.**

City: **Matelica (MC)**

Year: **2012**

Chamber	Max. working pressure		Working temperature (C°)	FLUID		Capacity (Litres)
	bar	kgf/cm²		Tupe	Phisical state	
Main Body	17,65	18	-25°C / +50°C	LPG Tetrene Mapp-gas	L+V	5000
Phisical state: L - Liquid, V - Vapour, G - Gas						

CONSTRUCTION CHECKS

- 1). Partial and final internal inspection.
- 2). Hydraulic test as per "Table 1".
- 3). Air test for all components.

Table 1

Chamber	Test pressure (bar)	Test pressure (kgf/cm ²)	Test result	Date	City
1	25,25	25,76	Positive	30.03.2012	Matelica

PUNCHED DATA

On the pressure equipment:

- 1). Hydraulic test date on the multivalve assembly stub pipe.
- 2). Fabrication number on the multivalve assembly stub pipe.
- 3). AM (standing for Antonio Merloni C. & T. s.r.l.) on all safety valve pipes.
- 4). CE 0100 mark on the data plate.

ATTACHMENTS

- 1). Construction drawing № 2045/180-REV.0-2008.
- 2). List of materials and radiographic test report.
- 3). Certificate of conformity directive 97/23/CE.
- 4). Certificates for the tests carried out on the epoxy coating.

Notes: Product to be installed underground protected by thermosetting epoxy resins coating together with cathodic protection and sacrificial anodes.

FIRST USE AND FOLLOWING CHANGES				
DATE	USER	CITY	MUNICIPALITY	PROVINCE

IMPORTANT INFORMATION

- The MAPP-GAS and TETHENE fluids can be used provided that their stability in the liquid and vapour phase is guaranteed during the storage time and throughout the gas delivery period.
- This booklet and its attachments must be kept with the equipment and be shown to the competent authorities upon request.

TANK SUBJECT TO PERIODIC VERIFICATION



Costruttore: ANTONIO MERLONI C.G.G.

Tank Type 5000

Fabrication No: 12MC0001128

MANUFACTURER DECLARATION

A) MATERIALS

- Shell, Ends, Hooks for Lifting and Transition Plates: P355NH EN 10028-3
- Socket - joint : ASTM A350
- Pipes: ASTM A 333 Gr.6
- Curves and Bottoms: ASTM A 350 LF2
- Plate supports an Supports: Carbon Steel

- Elliptical Ends cold forming in a single piece
- Physical State: liquid + vapour
- Design Pressure : 17,65 bar
- Project temperature Span: - 25 + 50°C
- Pressure Vessels in IV category according to 97/23/CE Directive

B) WELDINGS (No. of the qualification and hornologation certificate)

Procedures qualified according to EN 288-3

- WPS 110/04 – TÜV Qualification Certificate of the 28/06/2004
- WPS 111/04 – TÜV Qualification Certificate of the 28/06/2004
- WPS 112/04 – TÜV Qualification Certificate of the 28/06/2004
- WPS 113/04 – TÜV Qualification Certificate of the 28/06/2004
- WPS 114/04 – TÜV Qualification Certificate of the 28/06/2004
- WPS 115/04 – TÜV Qualification Certificate of the 28/06/2004
- WPS 116/04 – TÜV Qualification Certificate of the 28/06/2004
- WPS 117/04 – TÜV Qualification Certificate of the 28/06/2004

Welding Consumables:

- Filo pieno Ø 3,17 mm per arco sommerso
- Filo animato Ø 1,2 e filo pieno Ø 1,0 e 1,6 mm per riprese manuali

Welding operators qualified according to EN 287-1

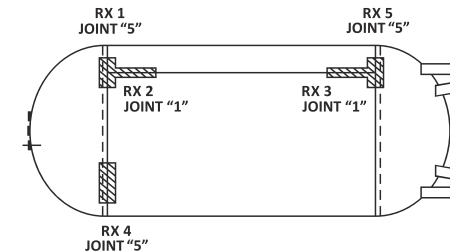
Saldatori con qualifica O.N TÜV Rheinland in corso di validita

C) REFERENCE VALUATION

1. NO DEFECTS
 2. ACCECTABLE DEFECTS
 3. NOT REPAIRABLE
- NON DESTRUCTIVE TESTING

Weld radiographic test according to ISPESL norme "S"
table 9.3

SATISFACTORY RESULT



Film No	Result	NOTE
1	1	
2	1	
3	1	
4	1	
5	1	

Operator signature: CiC PnD II level P.I. Sparvoli Paolo



DECLARATION OF CONFORMITY
(in compliance with the Attachment VII of the European Directive 97/23/CE)

A: Our equipment is an assembled pressure system:

Name:	LPG UNDER GROUND TANK Ø 1700 MM.		
Fabrication No:	Drawing No:	Family:	Type:
12MC0001128	2045/179-rev.0-09/12/2010	Epox	Vertical

B: Structure of the equipment:

Nº	Description	Used module	Max acceptable pressure (bar)	Acceptable Temperature °C		Fluid content	Capacity Litres
				Min.	Max.		
1	Tank	B+D	17,65	-25	+50	LPG	5000
2	Safety valve	B+D	17,65	-40	+50		
3	Filling valve	B+D	17,65	-40	+50		
4	Liquid phase delivery valve	B+D	17,65	-40	+50		
5	Service unit	B+D	17,65	-40	+50		
6	Level indicator	A	17,65	-40	+50		
7	Control box of the cathodic protection	According to directive 94/9/CE (atex)					

C: The following conformity assessment procedures are realized: module **B+D**, category **IV**

D: Complete Quality Assurance Certificate which includes structural inspection of the module H1 № 0160/11/CE
CE Structural Control Certificate for the module B1 №0631/11/CE

E: Authorized body INAIL (previously ISPESL) № 0100

F: Consistent and inconsistent norms applied during projecting and constructing, Books “VSR, M, S” and UNI EN 10028, section 3, UNI EN 10025

With reference to the above,

we hereby declare:

1. That the equipment / pressure system described under sections A and B and checked according to the sections C, D, E, F, meets the essential safety requirements specified in the Attachment I of the Directive 97/23/CE applicable to it.
2. Moreover the equipment passed the hydraulic pressure test at 25.25 bar and was given the CE certification.

DIRECTIVE 94/9/CE (ATEX)

The pressure equipment has been manufactured according to the following harmonized standards: EN 13463 - 1 - EN1127-1.
The conformity evaluation have been carried out according to Annex VIII of the directive.
The pressure equipment has been marked: **CE Ex II 3 G IIB T4**
Technical file № X001/03.

Matelica, 07/06/2012

Signature of the person in charge, appointed by the
Manufacturer Defined in the European Community.

Antonio Merloni Cylinders Ghergo Group Sp.A

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Cap.Soc. Euro 10.000 000
R.E.A. 177287 Macerata
www.amcylinders.com-
info@amcylinders.com





LPG TANK LITRES 5.000 TUBERO EPOX

Fabbrication No. 12MC00001128

MATERIALS EMPLOYEES AND RESULTS OF THE TESTS			
Structures	Shell 1	End 1	End 2
Thickness	9,00	10,00	10,00
Manufacturing	MAKSTIL	ARCELOR	ARCELOR
Quality	P355NH EN10028-3	P355NH EN10028-3	P355NH EN10028-3
Cast	467790	730912750	730912750
Batch	75029-01	1269036	126036
Speciment orientation	T	T	T
Test temperature	20 °C	20 °C	20 °C
Yeld stress	413	413	413
Tensil stress	563	584	584
Allungation	27,3	26,1	26,1
Resilience (°C)	-20	-20	-20
Resilience (J)	97	142	142
Nº Certificate	700676	730/0202198	730/0202198
Date certificate	23/01/2012	29/09/2009	29/09/2009
Laboratory	MAKSTIL	ARCELOR	ARCELOR
State	MACEDONIA	FRANCIA	FRANCIA

Дата: 19/03/2012

Antonio Merloni C.G.G. S.p.A.

Antonio Merloni Cylinders Ghergo Group Sp.A

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