

**Project: FIRE TEST FOR SOFT-SEATED
BALL VALVE**

Certificate No.: 1050/08 - 9587

Client: J.C. FÁBRICA DE VÁLVULAS, S.A.

Office: Sant Joan Despí (BCN)

Client's Order No.: ---

Date: 11.11.08

Inspection dates

First: 11.11.08

Order Status: Complete

Final: 11.11.08

This certificate is issued to

Messrs. **J.C. FABRICA DE VÁLVULAS, S.A.**, upon their request that the undersigned Suveryor to this Society did attend their premises at their works in Sant Boi de Llobregat - Barcelona (Spain) for the purpose of witnessing the FIRE TEST in accordance with the requirements specified in ISO 10497:2004, on the following type of valve:

A manually operate soft seated ball valve of 2" bore 2", I.I.RPTFE symetric Valve as per fig. 41501R class 800#.

Body and Connector material A316L

Seats: SEE DRAWING 6462

Ball material: SEE DRAWING 6462

Stem: SEE DRAWING 6462

Marks:

- BODY : Col. 91983
- CONNECTOR : Col. 704022

The test conducted on the valve previously subject to hydraulic pressure was as follows:

The valve in the closed position, filled with water under test pressure, was put in a box and exposed to flames with an environmental temperature in the region 750° C for a period of 30 minutes and established the leakage trough the seat and external to atmosphere during this period. The temperature was checked and recorded every two minutes, while leakages were determined using containers collecting the water leaked during burn period. Afterwards cool-down to 100° C. The valve seat and external hydrostatically tested to the appropriate test pressure and leakages recorded accordingly. Subsequently manually opened up under test pressure differential and finally the valve was fully hydrottested and leakages recorded.

All the following values were determined and recorded together with temperatures, times and pressures as shown on manufacturers Fire Safe Test Report nº C1050/08

SGS Tecnos, S.A.

1. Through-valve leakage during burn period - SATISFACTORY.
2. External leakage during burn and cool-down period - SATISFACTORY.
3. Through-valve leakage during operational test - SATISFACTORY.
4. External leakage during operational test - SATISFACTORY.
5. Operability to full open position and external leakage - SATISFACTORY.

The valve was subject to a visual examination with satisfactory results and subsequently dismantled in order to verify that valves components comply with the drawing and parts list supplied by the manufacturer, while seat rings were found completely destroyed.

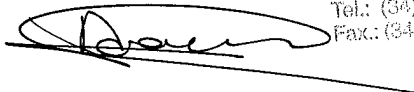
The manufacturers Fire Safe Test Report nº C1050/08 and drawing 6462 herewith attached were satisfactory checked and signed.

The above is considered in accordance with the mentioned specifications requirements, therefore the subject valve has satisfactory passed the prescribed fire test and can be also qualified as follows.

<u>DN</u>	<u>CLASS RATING</u>	<u>PN RATING</u>
50 and below, 65, 80, 100	800, 900, 1500	100, 150, 260

SGS Tecnos, S.A.

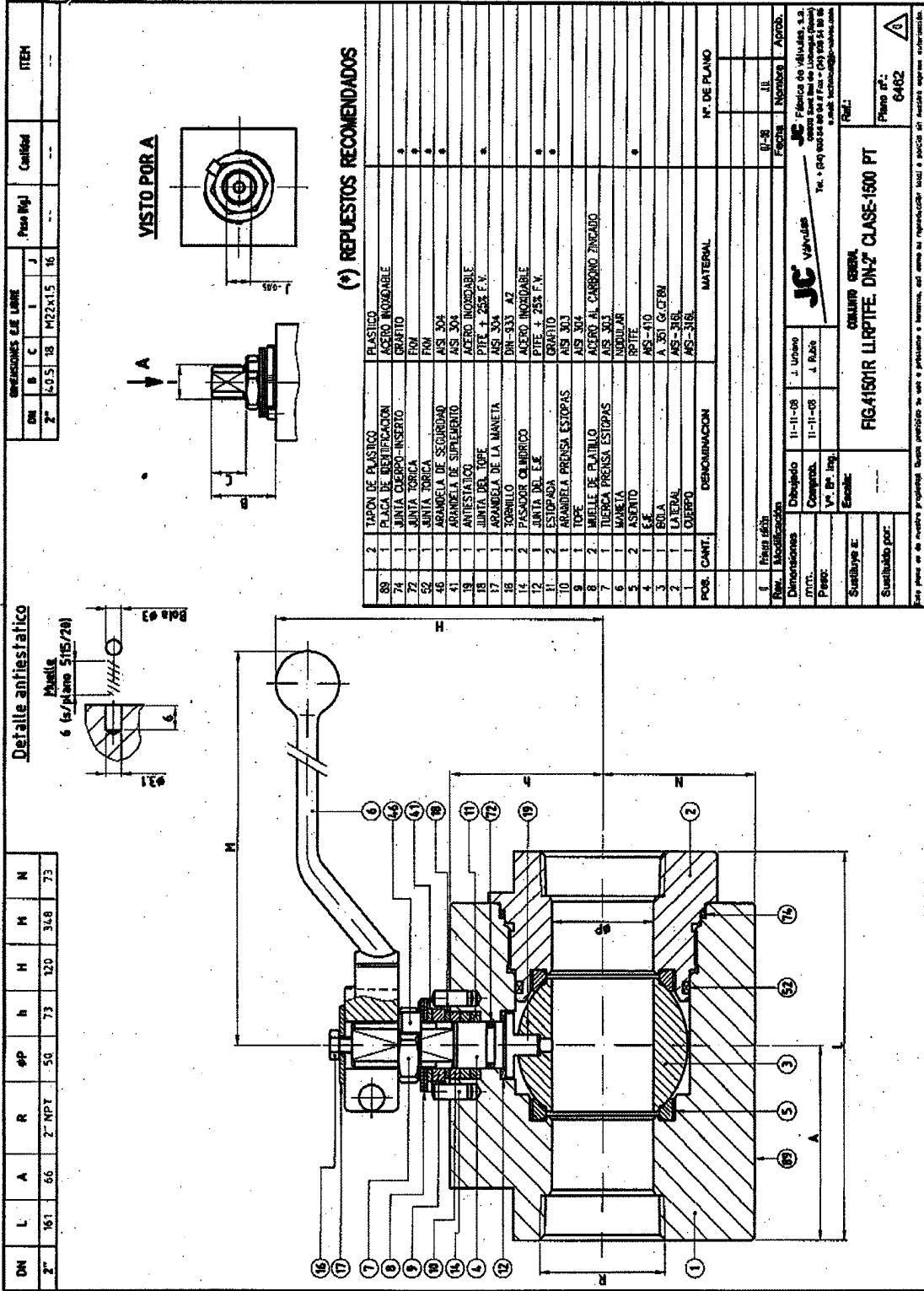
C/ Las Planas nº 1, Nave B
Poligono Industrial Fontseca
08970 Sant Joan Despi (Barcelona)
Tel.: (34) 93 477 01 71 - 93 477 01 69
Fax.: (34) 93 373 15 00



Surveyor Javier Aranda García

DOCUMENTS ATTACHED:

Sheets reviewed and stamped
Accordingly.



6462

**Project: FIRE TEST FOR SOFT-SEATED
BALL VALVE**

Certificate No.: 1066/08 - 9587

Client: J.C. FÁBRICA DE VÁLVULAS, S.A.

Office: Sant Joan Despí (BCN)

Client's Order No.: ---

Date: 14.11.08

Inspection dates

First: 14.11.08

Order Status: Complete

Final: 14.11.08

This certificate is issued to

Messrs. **J.C. FABRICA DE VÁLVULAS, S.A.**, upon their request that the undersigned Suveryor to this Society did attend their premises at their works in Sant Boi de Llobregat - Barcelona (Spain) for the purpose of witnessing the FIRE TEST in accordance with the requirements specified in ISO 10497:2004, on the following type of valve:

A manually operate soft seated ball valve of 2" bore 2", L.I.RPTFE symetric Valve as per fig. 41501R class 800#.

Body and Connector material LF2

Seats: SEE DRAWING 6461

Ball material: SEE DRAWING 6461

Stem: SEE DRAWING 6461

Marks:

- BODY : Col. 526195
- CONNECTOR : Col. 21192

The test conducted on the valve previously subject to hydraulic pressure was as follows:

The valve in the closed position, filled with water under test pressure, was put in a box and exposed to flames with an environmental temperature in the region 750° C for a period of 30 minutes and established the leakage trough the seat and external to atmosphere during this period. The temperature was checked and recorded every two minutes, while leakages were determined using containers collecting the water leaked during burn period. Afterwards cool-down to 100° C. The valve seat and external hydrostatically tested to the appropriate test pressure and leakages recorded accordingly. Subsequently manually opened up under test pressure differential and finally the valve was fully hydrottested and leakages recorded.

All the following values were determined and recorded together with temperatures, times and pressures as shown on manufacturers Fire Safe Test Report nº C1066/08

SGS Tecnos, S.A.

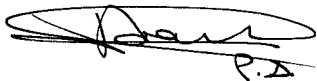
1. Through-valve leakage during burn period - SATISFACTORY.
2. External leakage during burn and cool-down period - SATISFACTORY.
3. Through-valve leakage during operational test - SATISFACTORY.
4. External leakage during operational test - SATISFACTORY.
5. Operability to full open position and external leakage - SATISFACTORY.

The valve was subject to a visual examination with satisfactory results and subsequently dismantled in order to verify that valves components comply with the drawing and parts list supplied by the manufacturer, while seat rings were found completely destroyed.

The manufacturers Fire Safe Test Report nº C1066/08 and drawing 6461 herewith attached were satisfactory checked and signed.

The above is considered in accordance with the mentioned specifications requirements, therefore the subject valve has satisfactory passed the prescribed fire test and can be also qualified as follows.

<u>DN</u>	<u>CLASS RATING</u>	<u>PN RATING</u>
50 and below, 65, 80, 100	800#, 900#, 1500#	100, 150, 260



Surveyor Jose Luis Rodilla

SGS Tecnos, S.A.
C/. Las Planas nº 1, Nave B
Poligono Industrial Font Santa
08970 Sant Joan Despí (Barcelona)
Tel.: (34) 93 477 01 71 - 93 477 01 69
Fax.: (34) 93 373 15 00

DOCUMENTS ATTACHED:
Sheets reviewed and stamped
Accordingly.

DIMENSIONES DE LINEA					
DN	B	C	I	J	ITEM
2"	40.5	18	M22x15	16	--

DIMENSIONES DE LINEA					
DN	R	NP	h	H	M
2"	56	2" NPT	50	73	120
					348
					73

Detalle antiestático

6 (x/plano 515/70)

VISTO POR A

(*) REPUESTOS RECOMENDADOS

POS.	CANT.	DESIGNACION	MATERIAL	RF. DE PLANO
2	1	TARON DE PLASTICO	PLASTICO	
80	1	PLACA DE IDENTIFICACION	ACERO INOXIDABLE	
74	1	LAMINA CUERO-INSERTO	GRATITO	
72	1	ANILLA TORICA	FEM	
52	1	ANILLA TORICA	FEM	
46	1	ARMADILLA DE SEGURADO	ANSI 304	
41	1	ARMADILLA DE SUPLENTO	ANSI 304	
18	1	ANTESTATORIO	ACERO INOXIDABLE	
13	1	UNTA DEL TOPE	PIE + 25% F.V.	
12	1	ARMADILLA DE LA MANETA	ANSI 304	
16	1	FORNULO	DN-303 B.8 ZINCADO	
14	2	PASADOR CILINDRICO	ACERO INOXIDABLE	
12	1	UNTA DEL E.E.	PIE + 25% F.V.	
11	2	ESTOPADA	GRATITO	
10	1	ARMADILLA PUNSA ESTOPAS	ANSI 303	
9	1	TOPE	ANSI 304	
8	2	MUELLE DE PLATILLO	ACERO AL CARBONO ZINCADO	
7	1	TUERCA PUNSA ESTOPAS	ANSI 303	
6	1	MANETA	MODULAR	
5	2	ASENTO	RPFE	
4	1	E.E.	ANSI-410	
3	1	ROLA	A. 351 GCFEM	
2	1	MATERIAL	A. 350 G. LF2	
1	1	CUERPO	A. 350 G. LF2	

Rev.	Modificación	Fecha	Nombre	Aprob.
1				

Diseñado: J. Usco
 Comprobado: J. Balis
 Vº. Pº. Ing.

Sustituye a: ---
 Sustituido por: ---

Empresa: COMAR GENERAL
 FIG.41501R L1RP1FE DN-2" CLASE-1500 PT
 Plano nº: 6461

6461

Project: FIRE TEST FOR SOFT-SEATED
SOCKET WELD BALL VALVE Certificate No.: BCL 500929/3

Client: J.C.FABRICA DE VALVULAS S.A. Office: BARCELONA

Client's Order No.: --- Date: 29.05.96

Inspection dates First: 26.01.96 Order Status: Complete

Final: 26.01.96

This certificate is issued to Messrs. J.C. FABRICA DE VALVULAS S.A., upon their request that the undersigned Surveyor to this Society did attend their premises at their works in Rubi - Barcelona (Spain) for the purpose of witnessing the FIRE TEST in accordance with the requirements specified in BS-6755: Part 2, 1987, API 6FA: 1994, and ISO-10497/92 on the following type of valve:

A manually operated soft seated socket weld ball valve of 1/2" reduced bore, symetric as per fig. 413AIT, class 800#.

Body material A-105.

Seats: PTFE.

Ball material: A-479-316.

Manufacturers identifying numbers: BODY: C415A15-M1.

Bonnet: L415A15 and Ball: 715.15.3.

Mass: 1,3 Kg.


Marks:

BODY : GE
BONNET : GE

The test conducted on the valve previously subject to hydraulic pressure was as follows:

The valve in the closed position, filled with water under test pressure, was put in a box and exposed to flames with an environmental temperature in the region 750° C for a period of 30 minutes and established the leakage through the seat and external to atmosphere during this period. The temperature was checked and recorded every two minutes, while leakages were determined using containers collecting the water leaked during burn period. Afterwards cool-down to 100° C. The valve seat and external hydrostatically tested to the appropriate test pressure and leakages recorded accordingly. Subsequently manually opened up under test pressure differential and finally the valve was fully hydrottested and leakages recorded.

All the following values were determined and recorded together with temperatures, times and pressures as shown on manufacturers Fire Safe Test Report n° 413-1/2".

.../... 

Certificate N°: BCL 500929/3

Office :Barcelona

Date :29.05.96

Sheet 2 of 2

1. Through-valve leakage during burn period-Satisfactory.
2. External leakage during burn and cool-down period-Satisfactory.
3. Through-valve leakage during operational test-Satisfactory.
4. External leakage during operational test-Satisfactory.
5. Operatibility to full open position and external leakage-Satisfactory.

The valve was subject to a visual examination with satisfactory results and subsequently dismantled in order to verify that valves components comply with the drawing and parts list supplied by the manufacturer, while seat rings were found completely destroyed.

The manufacturers Fire Safe Test Report n° 413-1/2" and drawing n° 1306/413AIT15 Rev. 0 herewith attached were satisfactory checked and signed.

The above is considered in accordance with the mentioned specifications requirements, therefore the subject valve has satisfactory passed the prescribed fire test and can be also qualified as follows:

<u>NPS</u>	<u>CLASS RATING</u>	<u>PN RATING</u>
RB:1/2", 3/4" & 1"	800, 900 & 1500	--
FB:3/8", 1/2" & 3/4"	800, 900 & 1500	--

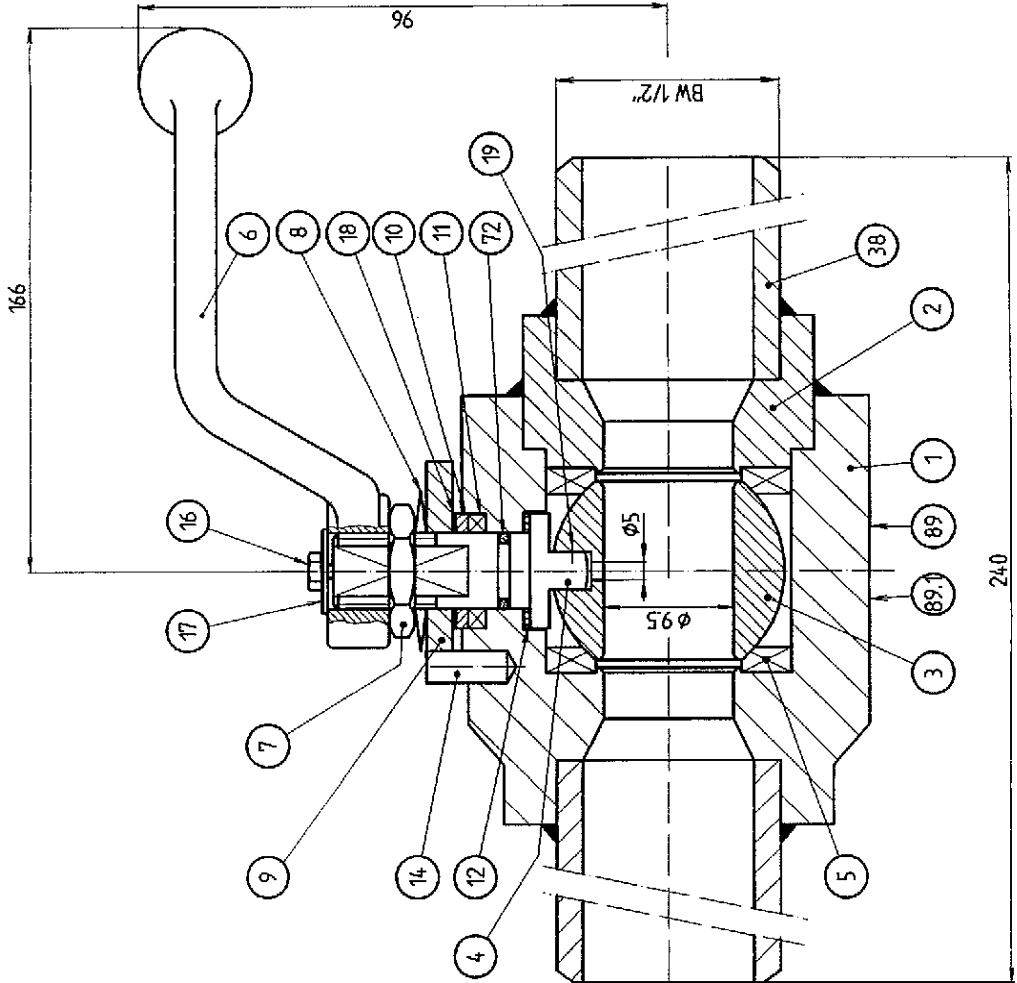
J. Gil
PDL



J. Gil for N. Cano
Surveyors to Lloyd's Register

DOCUMENTS ATTACHED:
9 Sheets reviewed and stamped accordingly.

NOTED AND FOUND CORRECT
 ATTACHED TO CERTIFICATE
 NO. SCC 50092773
 SHEET 1 OF 9



QTY	DESCRIPTION	MATERIAL	PLANT	DATE
2	PLASTIC CAP	PLASTIC	PLGAS	02-09-93
89.1	1 GAS IDENTIFICATION PLATE	AISI 304	PL400	03-01-95
89	1 VALVE IDENTIFICATION PLATE	AISI 304	7 x 15	
72	1 "O" RING	VITON	N415BW	13-12-93
38	2 NIPPLE	ASTM A106 Gr. B SCH 80		
19	1 ANTISTATIC DEVICE	STAINLESS ST.		
18	1 THRUST WASHER	25% G.F. PTFE	16 x 10 x 1	
17	1 WASHER	ZINC PLATED CARBON ST.	5120/17	16-06-83
16	1 BOLT	DIN 933 5.6	M5 x 12	
14	1 STOP PIN	CARBON ST.	5 x 12 DIN 6325	
12	1 STEM THRUST SEAL	25% G.F. PTFE	15 x 12 x 1	
11	1 GLAND PACKING	GRAPHITE	16 x 10 x 4	
10	1 GLAND	AISI 303	715.15.10	05-11-86
9	1 STOP PLATE	CARBON ST.	715.15.9	05-11-86
8	2 DISK SPRING	CARBON ST.	DN 5 B20 DN2093	
7	1 GLAND NUT	CARBON ST.	515/07	08-06-83
6	1 WRENCH	NOBULAR IRON	M715END	10-06-93
5	2 SEAT RING	PTFE	A95401-M1	23-07-93
4	1 STEM	A 276/479 Tp.316	E71515G	13-12-93
3	1 BALL	AISI 316	715.15.3	08-11-93
2	1 BODY CONNECTOR	A 105	L415A15	13-12-93
1	1 BODY	A 105	C415A15-M1	11-94

Marca	Cont.	DENOMINACION	MATERIAL	Nº DE PLANO	FECHA
		Dibujado	Victor F.		
		Comprobado			
		Vº Bº Ing.			
		Escala:			
		Sustituido por			
		Sustituye a			

<p>JC Fábrica de válvulas, S.A. Hospitalet de Ll. (Barcelona)</p>		Ref
<p>FIG. 413; A.I.T.; 1/2"; ANSI 800 Lbs.</p>		Planon. 1306/4BAIT5

Project: FIRE TEST FOR SOFT-SEATED
SOCKET WELD BALL VALVE Certificate No.: BCL 500929/2

Client: J.C.FABRICA DE VALVULAS S.A. Office: BARCELONA

Client's Order No.: --- Date: 29.05.96

Order Status: Complete

Inspection dates First: 26.01.96 Final: 26.01.96

This certificate is issued to Messrs. J.C. FABRICA DE VALVULAS S.A., upon their request that the undersigned Surveyor to this Society did attend their premises at their works in Rubi - Barcelona (Spain) for the purpose of witnessing the FIRE TEST in accordance with the requirements specified in BS-6755: Part 2, 1987, API 6FA: 1994, and ISO-10497/92 on the following type of valve:

A manually operated soft seated socket weld ball valve of 1" full bore, symmetric as per fig. 403AIT, class 800#.

Body material A-105.

Seats: PTFE.

Ball material: A-479-316.

Manufacturers identifying numbers: BODY: C405A25.

Bonnet: L405A25 and Ball: 00250311.

Mass: 3,5 Kg.

Marks:

BODY : GF
BONNET : GF

The test conducted on the valve previously subject to hydraulic pressure was as follows:

The valve in the closed position, filled with water under test pressure, was put in a box and exposed to flames with an environmental temperature in the region 750° C for a period of 30 minutes and established the leakage through the seat and external to atmosphere during this period. The temperature was checked and recorded every two minutes, while leakages were determined using containers collecting the water leaked during burn period. Afterwards cool-down to 100° C. The valve seat and external hydrostatically tested to the appropriate test pressure and leakages recorded accordingly. Subsequently manually opened up under test pressure differential and finally the valve was fully hydrotested and leakages recorded.

All the following values were determined and recorded together with temperatures, times and pressures as shown on manufacturers Fire Safe Test Report n° 403-1".

.../... 

Certificate Nº: BCL 500929/2

Office :Barcelona

Date :29.05.96

Sheet 2 of 2

1. Through-valve leakage during burn period-Satisfactory.
2. External leakage during burn and cool-down period-Satisfactory.
3. Through-valve leakage during operational test-Satisfactory.
4. External leakage during operational test-Satisfactory.
5. Operatibility to full open position and external leakage-Satisfactory.

The valve was subject to a visual examination with satisfactory results and subsequently dismantled in order to verify that valves components comply with the drawing and parts list supplied by the manufacturer, while seat rings were found completely destroyed.

The manufacturers Fire Safe Test Report nº 403-1" and drawing nº 1305/403AIT25 Rev. 0 herewith attached were satisfactory checked and signed.

The above is considered in accordance with the mentioned specifications requirements, therefore the subject valve has satisfactory passed the prescribed fire test and can be also qualified as follows:

<u>NPS</u>	<u>CLASS RATING</u>	<u>PN RATING</u>
FB:1", 1¼", 1½" & 2"	800, 900 & 1500	--
RB:1¼", 1½" & 2"	800, 900 & 1500	--

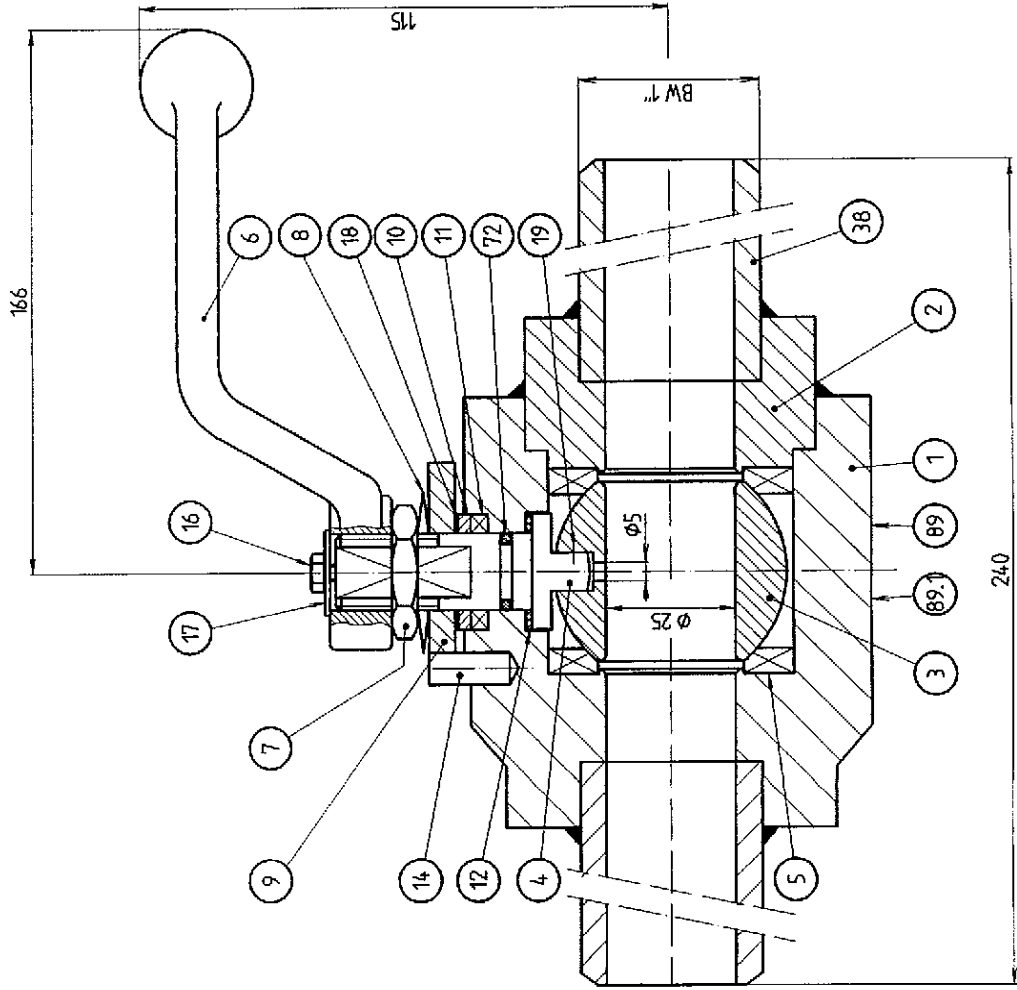


For

J. Gil for N. Cano
Surveyors to Lloyd's Register

DOCUMENTS ATTACHED:
9 Sheets reviewed and stamped accordingly.

NOTED AND FOUND CORRECT
 ATTACHED TO CERTIFICATE
 NO. ACC 500 929/2
 SHEET 1 OF 9



89.1	2	PLASTIC CAP	PLASTIC	PLUGAS	02-09-93
1	1	GAS IDENTIFICATION PLATE	AISI 304	PL400	03-01-95
89	1	VALVE IDENTIFICATION PLATE	AISI 304	9.25 x 1.78	16-11-93
72	1	"O" RING	VITON	18 x 12 x 0.5	
38	2	NIPPLE	ASTM A 106 Gr. B SCH 80	5 x 12 DIN 6325	
19	1	ANTISTATIC DEVICE	STAINLESS ST.	18 x 13 x 13	
18	1	THRUST WASHER	25% G.F. PTFE	18 x 12 x 5.5	
17	1	WASHER	ZINC PLATED CARBON ST.	5120/17	16-06-83
16	1	BOLT	DIN 933 5.6	M5 x 12	
14	1	STOP PIN	CARBON ST.	5 x 12 DIN 6325	
12	1	STEM THRUST SEAL	25% G.F. PTFE	18 x 13 x 13	
11	1	GLAND PACKING	GRAPHITE	18 x 12 x 5.5	
10	1	GLAND	AISI 303	5120/10-1	23-07-87
9	1	STOP PLATE	CARBON ST.	STOP 15H530	09-02-94
8	2	DISK SPRING	CARBON ST.	DN 20 B25 DIN 2093	
7	1	GLAND NUT	CARBON ST.	00200740	23-11-88
6	1	WRENCH	NUDULAR IRON	M15ND-M1	26-05-94
5	2	SEAT RING	PTFE	A4-0125	14-06-95
4	1	STEM	A 276/479 Tp.316	E500E5G	08-11-93
3	1	BALL	AISI 316	00250311	06-89
2	1	BODY CONNECTOR	A 105	L405A25	02-09-95
1	1	BODY	A 105	C405A25	05-09-95
Marca	Conti.	DENOMINACION		MATERIAL	Nº DE PLANO
mm		Dibujado	11-03-96	Victor F.	FECHA
Dimensiones		Comprobado	12.3.96	[Signature]	
Peso (Kg)	3.5	Vº Bº Ing.			
Sustituido por		Escafo			
Sustituye a					
<p align="center">JC Fábrica de válvulas, S.A. Hospitalet de LL (Barcelona)</p> <p align="center">JC® BALL VALVE FIG.403; A.I.T; 1"; ANSI 800 Lbs.</p>					Ref
					Plann. 1305/403AIT25